# Service Manual

900MHz Cordless Answering System

# and Technical Guide

Telephone Equipment

# KX-TCM940-B

(for U.S.A.)







(Model KX-TCM940R-B)

#### SPECIFICATIONS

	Base Unit (KX-TCM940H-B)	Portable Handset (KX-TCM940R-B)
Power Source:	AC Adaptor (KX-A11-6)	Rechargeable Ni - Cd battery
Receiving Frequency:	30 channels within 926.1~927.55 MHz	30 channels within 902.1~903.55 MHz
Receiving Method:	Double super heterodyne	Double super heterodyne
Transmitting Frequency:	30 channels within 902.1~903.55 MHz	30 channels within 926.1~927.55 MHz
Oscillation Method:	PLL synthesizer	PLL synthesizer
Detecting Method:	Quadrature Discriminator	Quadrature Discriminator
Tolerance of OSC Frequency:	±3.6 kHz	±3.6 kHz
Modulation Method:	F3 (frequency modulation)	F3 (frequency modulation)
ID Code:	20-bit	20-bit
Greeting Message and Incoming Message:	Full digital recording Total recording time, 15 minutes	
Dial Mode:		Tone (DTMF)/Pulse
Redial:		Up to 30 digits
Save:		Up to 30 digits
Power Consumption:		14 days at Standby, 4.5 hours at Talk
Dimension (H×W×D):	$2^{11}/_{32}$ " $\times 6^{11}/_{32}$ " $\times 8^{1}/_{4}$ " (60 $\times$ 161 $\times$ 210 mm)	$10^{1}/_{4}" \times 2^{8}/_{16}" \times 1^{9}/_{16}" (260 \times 56 \times 40 \text{ mm})$
Weight	1.36 lbs. (619 g) with spare battery	0.47 lbs. (214g) with battery

Design and specifications are subject to change without notice.

# **Panasonic**

©1996 Kyushu Matsushita Electric Co., Ltd. All rights reserved. Unauthorized copying and distribution is a violation of law.

# **⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

When you mention the serial number, write down all 11 digits. The serial number may be found on the label affixed to the bottom of the unit.

# **TABLE OF CONTENTS**

STANDARD BATTERY LIFE2	SCHEMATIC DIAGRAM (KX-TCM940R-B)36~38
LOCATION OF CONTROLS	CIRCUIT BOARD (KX-TCM940R-B)39, 40
CONNECTION TO A TELEPHONE LINE 5	BLOCK DIAGRAM (KX-TCM940H-B)
DISASSEMBLY INSTRUCTIONS 6	NEW CIRCUIT OPERATION (KX-TCM940H-B)43~46
ADJUSTMENT (KX-TCM940R-B)7~10	NORMAL CIRCUIT OPERATION (KX-TCM940H-B) 47~55
ADJUSTMENT (KX-TCM940H-B)11~13	BLOCK DIAGRAM (KX-TCM940R-B) 56, 57
CPU DATA KX-TCM940H-B (Base Unit) 14	NORMAL CIRCUIT OPERATION (KX-TCM940R-B) 58~61
CPU DATA KX-TCM940R-B (Portable Handset)	TROUBLESHOOTING GUIDE62~69
EXPLANATION OF IC TERMINALS(KX-TCM940H-B) 16~20	CABINET AND ELECTRICAL PARTS
EXPLANATION OF CPU DATA COMMUNICATION 21~24	LOCATION (KX-TCM940H-B)70
FREQUENCY TABLE24	CABINET AND ELECTRICAL PARTS
CIRCUIT BOARD (KX-TCM940H-B) (DSP P.C.B)	LOCATION (KX-TCM940R-B)71
CIRCUIT BOARD (KX-TCM940H-B) (RF Unit)	ACCESSORIES AND PACKING MATERIALS 72
SCHEMATIC DIAGRAM (KX-TCM940H-B) (RF Unit) 27, 28	FIXTURES AND TOOLS72
CIRCUIT BOARD (KX-TCM940H-B) (Main P.C.B.) 30~32	REPLACEMENT PARTS LIST(KX-TCM940H-B) 73~78
SCHEMATIC DIAGRAM (KX-TCM940H-B) (Main P.C.B.) 33~35	REPLACEMENT PARTS LIST(KX-TCM940R-B) 79~82

# STANDARD BATTERY LIFE

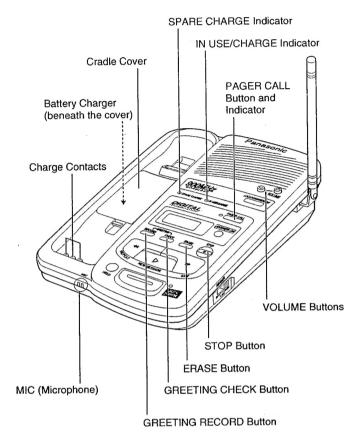
If your Panasonic battery is fully charged;

While in use (TALK)	Up to about 4.5 hours
While not in use (Stand-By)	Up to about 14 days

- Battery life may vary depending on usage conditions and ambient temperature.
- Clean the charge contacts with a soft cloth once a month, or the battery may not charge properly.
- Once the battery is fully charged, you do not have to place the handset on the base unit until the TALK/BATT LOW/PROG indicator flashes slowly.
- · The battery cannot be overcharged.
- · USE ONLY Panasonic AC ADAPTOR KX-A11-6.

# **LOCATION OF CONTROLS**

Base Unit (KX-TCM940H-B)



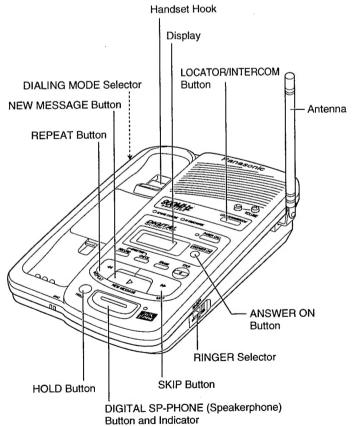
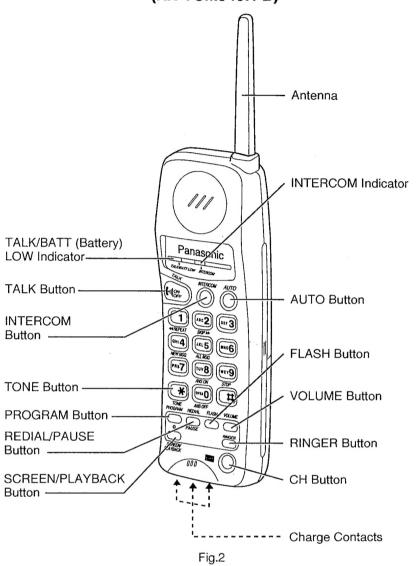


Fig.1

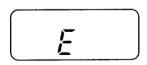
# Portable Handset (KX-TCM940R-B)



## Base unit display



The clock needs adjusting.

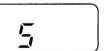


Your greeting message was not recorded correctly. Record it again.



12 messages have been recorded.

Memory is full. Erase some or all of the messages.

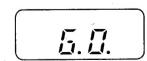


The speaker volume level is set to "5". You can select:

- •9 levels (0-8) while using the answering system.
- •8 levels (1-8) while using the speakerphone.

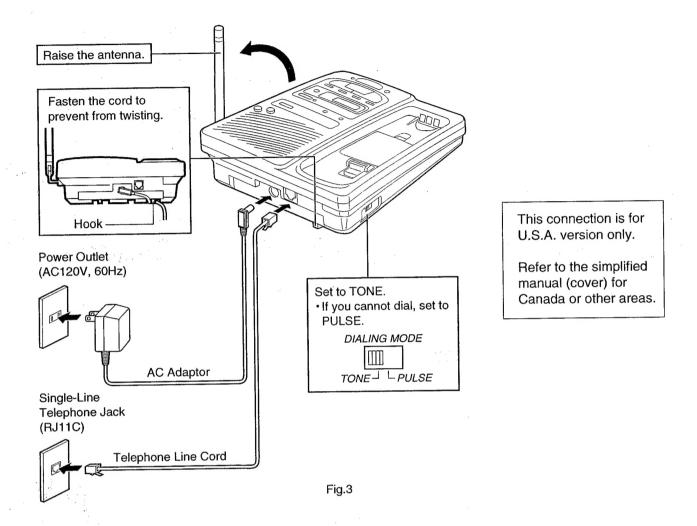


The unit is in programming mode.



The recording time is set to "greetong only".

# **CONNECTION TO A TELEPHONE LINE**



#### Notes:

- USE ONLY Panasonic AC ADAPTOR KX-A11-6.
- The AC adaptor must remain connected at all times. (It may feel warm during use. This is normal.)

# **Adding Another Phone**

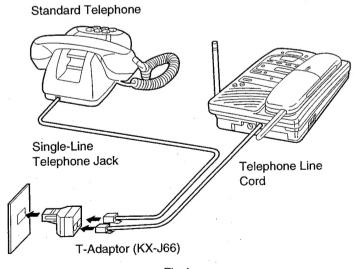
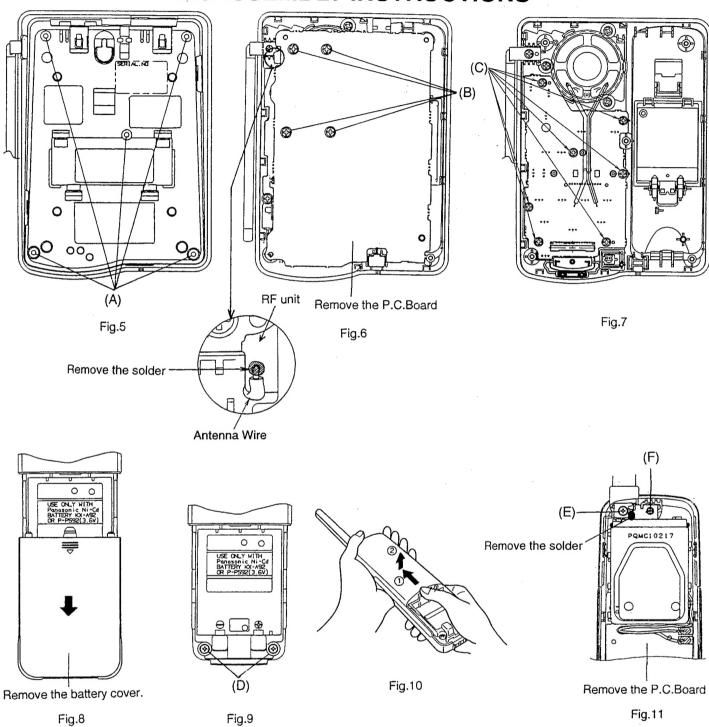


Fig.4

# **DISASSEMBLY INSTRUCTIONS**



Ref No.	Procedure	Shown in Fig	To Remove	Remove
1	1	5	Lower Cabinet	Screws (3×14)(A)×5
2	1, 2		Main P.C. Board	Remove the P.C. Board
3	1~3	6	RF Unit	Screws (7.6×8)(B)×4
4	1~4	7	Operation P.C. Board	Screws (3×10)(C)×7
5	5	8	Battery Cover	Remove the Battery Cover
6	5, 6	9	Rear Cabinet	Screws (2.6×12)(D)×2
7	5~7	11	Antenna	Screw (2.6×12) (E)×1
8	5~8	11	P.C. Board	Screw (2.6×12)(F)×1

Note: When disassembling the cabinet cover of portable handset, press it direction of arrow as shown Fig. 10.

# **ADJUSTMENT**

#### **OBJECTIVE**

This procedure will enable the technician to make adjustments to the KX-TCM940-B PORTABLE HANDSET and BASE UNIT.

## **GENERAL INFORMATION**

This procedure has 2 sections. The first section instructs the technician on how to align the PORTABLE HANDSET. We recommend aligning the PORTABLE HANDSET first, since you will need the PORTABLE HANDSET to align the BASE UNIT. The second section aligns the BASE UNIT. You can use either section separately, or together to align the entire cordless phone unit.

At the beginning of each section, you will find a preparation procedure instructing you on how to prepare the unit to the point of placing the unit in TEST mode. Please follow this procedure to insure proper alignment.

Each section's procedure consists of Adjustment Items adjusting one specific variable hardware component.

Each Item lists the equipment needed, how to connect and setup the equipment, how to make the adjustment, and how to verify the adjustment if necessary.

Before the actual procedure, you will find a procedure detailing how to place that part in TEST mode. You will have to perform this procedure before each individual Adjustment Item.

Once aligned, please remove all equipment connections and solder points, and reassemble the unit. As a final check, power up the phone and check for PORTABLE HANDSET linking with the BASE UNIT.

#### **EQUIPMENT**

- Radio Tester: Marconi Model 2295A or later.
- 4.5 digit Digital Multimeter: B&K Model 2833 or compatible.
- Oscilloscope, single or dual channel: Panasonic VP-5512P100 or compatible.
- Telephone Analyzer: B&K Model 1050 or compatible.
- DC Power Supply, capable of supply 3.9V DC at 100mA NOTE: only needed if Telephone Analyzer does not have DC VOLTS output available.
- High Frequency Attenuator, 10dB or greater. 6.
- Corded Telephone. 7.
- High Frequency Cable: BNC end to open end.
- Audio Cable: BNC end to alligator clip end.
- High Frequency Adjustment Tool: 10.
- Isolation Capacitors, quantity of 2, 10 µF maximum, 50V DC or greater. 11.
- Soldering Iron, solder, and various tools. 12.

# PORTABLE HANDSET PREPARATION

Please perform the following steps to prepare the PORTABLE HANDSET for alignment. Please refer to the PORTABLE HANDSET REFERENCE DRAWING for connection and test point locations.

- Remove battery cover and battery.
- Remove both screws at the case bottom.
- Grabbing hold of the back near the bottom, gently pry off the back of the case.
- Remove the antenna mounting screw. While heating the antenna solder connection, pull out the antenna.
- Remove the top P.C.Board mounting screw. 5.
- Unsolder both speaker connections on P.C.Board.
- Remove the PORTABLE HANDSET P.C.Board. 7.
- Remove the keypad membrane. 8.
- Solder High Frequency Cable open end to ANT and RF GND points.
- Using the Digital Multimeter, measure DC VOLTS output on the Telephone Analyzer. Adjust the output voltage to 3.9V DC.
- Solder battery connection wires at the points shown in the PORTABLE HANDSET REFERENCE DRAWING. Solder the positive lead to IC204, towards the bottom of the P.C.Board. Solder the negative lead to the MIC minus lead, closest to IC204. DO NOT APPLY POWER TO THE PORTABLE HANDSET AT THIS TIME!!!!!!
- Solder a small, insulated piece of wire to GND as well.
- Solder 1 isolation capacitor's positive lead to SP+ test point (TP4). When soldering, keep the lead close to the P.C.Board as possible since you will lay the keypad membrane over part of this lead.
- Solder a small, short, insulated wire to MIC test point (TP8).
- Lay the keypad membrane over the keypad switch contacts.

#### SYMPTOM/REMEDY TABLE

If you have one of the listed symptoms, please refer to this table and make the appropriate adjustments.

SYMPTOM	REMEDY
Does not link with BASE UNIT	Check Items (A) and (B). If both items are OK, adjust Items (D) and (E).
Speaker level is unstable	Check Items (A) and (B). If both items are OK, adjust Items (C).
Tx sound is unstable	Check Items (A) and (B). If both items are OK, adjust Items (F).

#### PORTABLE HANDSET ADJUSTMENT PREPARATION

Please perform the following procedure before starting the Adjustment Procedure. You only have to perform this procedure only once to complete all Items, but you will have to perform this procedure to make an individual Adjustment Item.

- 1. You will need all equipment listed in the Item's EQUIPMENT section.
- 2. Setup all equipment as specified in the Item's PROCEDURE section SETUP portion.
- 3. On the PORTABLE HANDSET under test, press and hold down the 1, 9, and  $\times$  keys.
- 4. Apply power to the PORTABLE HANDSET.
- 5. Release the 3 keys. You should hear the PORTABLE HANDSET beep. If you do not hear a beep, remove the power from the PORTABLE HANDSET and repeat the last 2 steps.
- 6. Press the **INTERCOM** key, then press the **TALK** key. PORTABLE HANDSET should now be in TEST MODE (CH 1 TALK). The IN USE/BATT LOW LED should be on. If the PORTABLE HANDSET is not in TEST MODE, remove the power and repeat the last 3 steps.
- 7. Remove the keypad membrane and lay it aside.

## **ADJUSTMENT PROCEDURE**

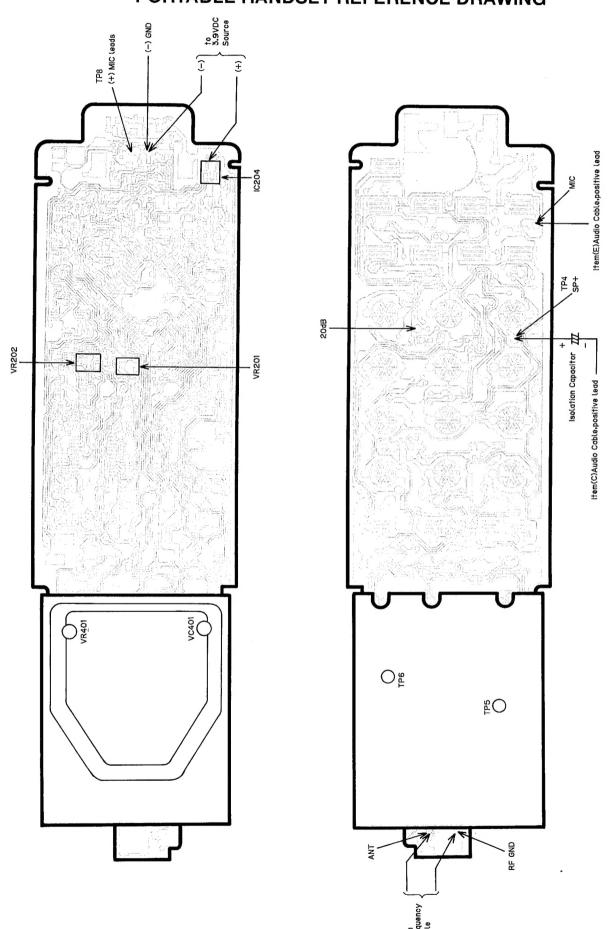
ADJUSTMENT ITEM DESCRIPTION	EQUIPMENT	PROCEDURE
(A) Rx VCO Voltage Confirmation only	Digital Multimeter SETUP to measure DC Voltage, 20V range	Connect negative lead to RF module metal cover and positive lead to <b>TP5</b> . Measure voltage and confirm that this voltage is between 0.8V DC and 1.8V DC. DO NOT PROCEED IF NOT IN RANGE!!
(B) Tx VCO Voltage Confirmation only	Digital Multimeter SETUP to measure DC Voltage, 20V range	Connect negative lead to RF module metal cover and positive lead to <b>TP6</b> . Measure voltage and confirm that this voltage is between 0.8V DC and 1.8V DC. DO NOT PROCEED IF NOT IN RANGE!!
(C) SP Output	Marconi SETUP Put in Receiver Test Mode. RF GEN FREQ 902.1000MHz LEVEL 60dBμV SET MOD FREQ 1.000kHz LEVEL 5.000kHz High Frequency Cable to left RF Connector. Audio Cable positive lead to isolation capacitor, negative lead to GND, BNC end to AF INPUT connector.	Adjust VR202 until AF VOLTS equals -33dBV +/-1dBV  Note This voltage reading is with no speaker or load attached to the PORTABLE HANDSET P.C.Board.

ADJUSTMENT ITEM DESCRIPTION	EQUIPMENT	PROCEDURE
(D) 20dB Electric Detection	Marconi SETUP Put in Receiver Test Mode. RF GEN FREQ 902.1000MHz LEVEL 60dBμV SET MOD FREQ 1.000kHz LEVEL 5.000kHz One end of BNC cable to left RF connector, other end to Attenuator Input. Audio Cable positive lead to isolation capacitor, negative lead to GND, BNC end to AF INPUT connector.  Oscilloscope SETUP X1 probe connected to INPUT 1. Probe ground connected to GND. TIME/DIV 1 ms VOLT/DIV 1V Auto trigger  Attenuator SETUP High Frequency Cable to Attenuator Output.	On Marconi, press SINAD until the display shows the SINAD value and press dB. Then press RF GEN and LEVEL. Attach the oscilloscope probe to 20dB test point (TP7). Using the VARIABLE knob on the Marconi, decrease RF GEN LEVEL until SINAD value is between 7dB and 9dB. NOTE: this value will not be stable. Adjust VR401until oscilloscope voltage toggles. This is the 20dB SET POINT. NOTE: toggling may not occur at regular intervals. Decrease RF GEN LEVEL until the SINAD value decreases by at least 3dB. Check that oscilloscope voltage is high. Now increase REF GEN LEVEL until SINAD value is at least 3dB above the 20dB SET POINT. Check that oscilloscope voltage is low.
(E) MIC Input	Marconi SETUP Put in Transmitter Test mode. AF GEN FREQ 1.000KHZ LEVEL 23mV Connect High Frequency Cable to right RF connector. Connect Audio Cable positive lead to MIC, negative lead to GND, BNC end to AF GEN OUTPUT.	Adjust VR201 until Marconi MOD LEVEL equals 5kHz +/- 0.5kHz
(F) Standard Frequency	Marconi SETUP Put in Transmitter Test mode. AF GEN FREQ 1.000kHz LEVEL 21mV Connect High Frequency Cable to right RF connector. Connect Audio Cable positive lead to MIC, negative lead to GND, BNC end to AF GEN OUTPUT	Adjust VC401 until Marconi TX FREQ equals 926.100MHz +/-0.0005MHz  Note This Item's setup is exactly the same as Item (E). If you have done Item (E), simply look at TX FREQ and make the adjustment.

Once aligned, please perform the following procedure.

- 1. Disconnect all equipment and solder connections. Use solder wick to clean up any solder you added.
- 2. Install the keypad membrane on top of the PORTABLE HANDSET keys.
- 3. Install the PORTABLE HANDSET P.C.Board.
- 4. Solder speaker wires back onto the P.C.Board observing correct polarity.
- 5. If you will align Item (E) RX Input in BASE UNIT, then solder a short wire across the MIC leads. Remember to unsolder this wire after you completed the BASE UNIT alignment.
- 6. Insert antenna into the case.
- 7. Install antenna and top P.C.Board mounting screws and solder antenna connection.
- 8. Install case back and bottom mounting screws.
- 9. DO NOT INSTALL THE BATTERY AT THIS TIME!!!!!!

# PORTABLE HANDSET REFERENCE DRAWING



Fia. 11

## **BASE UNIT PREPARATION**

Please prepare the BASE UNIT before performing any adjustment procedures. Refer to the BASE UNIT REFERENCE DRAWING for connection and test point locations.

- 1. Unscrew all 5 screws from bottom of cabinet. Remove cabinet bottom.
- 2. Unsolder antenna wire at RF module.
- 3. Solder a short piece of wire from TP[CDL-TEST] to TP[COM].
- 4. Solder a short, insulated wire to GND as shown on the BASE UNIT REFERENCE DRAWING.
- 5. Solder one isolation capacitor's positive lead to the main P.C.Board **TIP** point and the other isolation capacitor's positive lead to the main P.C.Board **RING** point.
- 6. Connect the Audio Cable, positive lead to the **TIP** isolation capacitor's free lead, the negative lead to the **RING** isolation capacitor's free lead. Do not connect the BNC end of the cable.
- 7. Connect the Telephone Analyzer PHONE TEST JACK #1 to the BASE UNIT P.C.Board phone jack.
- 8. Connect the corded telephone to the Telephone Analyzer PHONE TEST JACK #2.
- 9. Remove main P.C.Board from cabinet top and place beside cabinet.
- 10. Solder High Frequency Cable open end to ANT and RF GND as specified in BASE UNIT REFERENCE DRAWING.

#### SYMPTOM/REMEDY TABLE

If you have one of the listed symptoms, please refer to this table and make the appropriate adjustments.

SYMPTOM	REMEDY
Does not link with PORTABLE HANDSET	Check Items (A) and (B). If both are OK, adjust Items (E) and (F).
Transmission sound to PORTABLE HANDSET receiver is unstable	Check Items (A) and (B). If both are OK, adjust Items (C) and (D).

#### BASE UNIT ADJUSTMENT PREPARATION

Please perform the following steps to prepare the BASE UNIT for the Adjustment procedure.

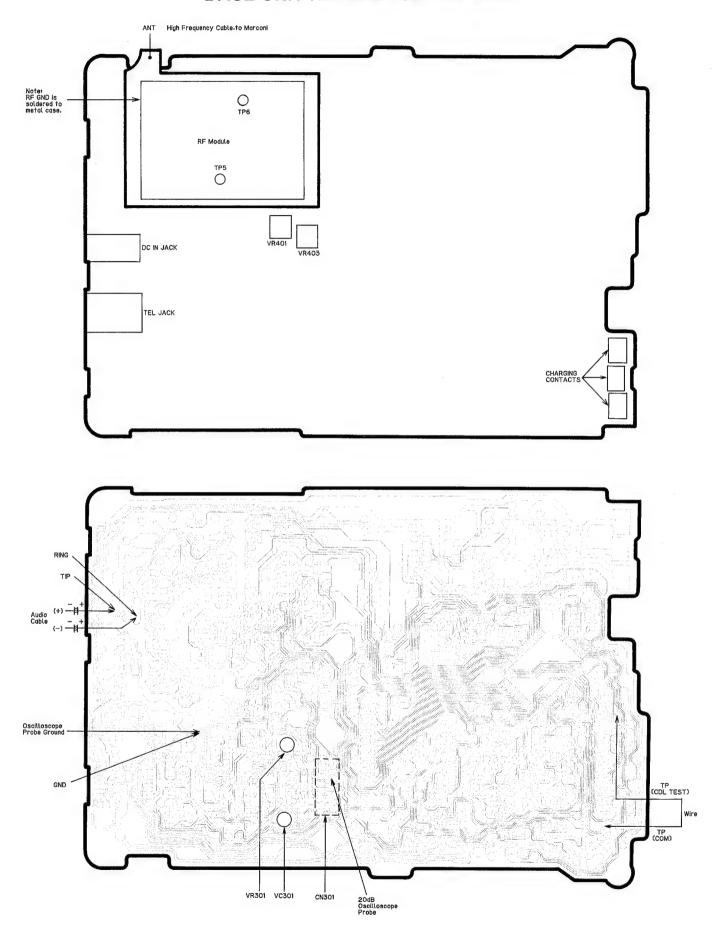
- 1. Connect P.C.Board to all equipment as specified in PROCEDURE section, SETUP portion.
- 2. Connect AC Adaptor to AC Jack of BASE UNIT main P.C.Board.
- 3. Press **LOCATOR/INTERCOM** button twice. BASE UNIT P.C.Board should be in TEST MODE (CH1 TALK). If unit is not in TEST MODE, remove power from P.C.Board and repeat last step.

ADJUSTMENT ITEM DESCRIPTION	EQUIPMENT	PROCEDURE
(A) Rx VCO Voltage Confirmation only	<b>Digital Multimeter</b> SETUP to measure DC Voltage, 20V range.	Connect negative lead to RF module metal cover and positive lead to <b>TP5</b> . Measure voltage and confirm that this voltage is between 0.8V DC and 1.8V DC. DO NOT CONTINUE IF VOLTAGE IS OUT OF RANGE!!!
(B) Tx VCO Voltage Confirmation only	<b>Digital Multimeter</b> SETUP to measure DC Voltage, 20V range.	Connect negative lead to RF module metal cover and positive lead to <b>TP6</b> . Measure voltage and confirm that this voltage is between 0.8V DC and 1.8V DC. DO NOT CONTINUE IF VOLTAGE IS OUT OF RANGE!!!
(C) Standard Frequency	Marconi SETUP Place in Transmitter Test mode. AF GEN FREQ 1.000kHz LEVEL 40mV High Frequency Cable to right RF connector. Telephone Analyzer Corded Phone Take phone off hook	Adjust VC301 until Marconi TX FREQ equals 902.100MHz +/-0.0005MHz  Note This item's setup is exactly the same as Item (E). If you have done Item (E), simply look at TX FREQ on the Marconi and make the adjustment.

KX-TCM940-B		
ADJUSTMENT ITEM DESCRIPTION	EQUIPMENT	PROCEDURE
(D) TX Output	Marconi SETUP Put in Receiver Test Mode. RF GEN FREQ 926.1000MHz LEVEL 60dBμV SET MOD FREQ 1.000kHz LEVEL 5.000kHz High Frequency Cable to left RF connector. Audio Cable positive lead to TIP isolation capacitor, negative lead to RING isolation capacitor, BNC end to AF IN-PUT connector.  Telephone Analyzer Corded Telephone Take phone off hook	Adjust VR401 until AF VOLTS equals -16.7dBV +/-1dBV  Notes You do not need to take the corded phone off hook, but you will hear the 1kHz tone. This will insure that your setup is probably working.
(E) RX Input	Marconi SETUP Place in Transmitter Test mode. AF GEN FREQ 1.000kHz LEVEL 40mV High Frequency Cable to right RF connector.  Telephone Analyzer Corded Phone Take phone off hook KX-TCM940-B Portable Handset Placed in TEST mode by inserting battery while pressing 1, 9, and × keys	Adjust VR403 until MOD LEVEL equals 6.5kHz +/-0.5kHz  Notes You need to place the PORTABLE HANDSET in TEST mode to drown spurious RF signals being picked up at the BASE UNIT. By shorting the MIC leads insures that you are sending an unmodulated RF signal. You need the corded phone off hook to keep the telephone analyzer from sending a dial tone to the unit under test. The dial tone adds to the MOD LEVEL value greatly.
(F) 20dB Electric Detection	Marconi SETUP Put in Receiver Test Mode. RF GEN FREQ 926.1000MHz LEVEL 60dBμV SET MOD FREQ 1.000kHz LEVEL 5.000kHz One end of BNC cable to left RF connector, other end to Attenuator Input. Audio Cable positive lead to TIP isolation capacitor, negative lead to RING isolation capacitor, BNC end to AF IN-PUT connector.  Oscilloscope SETUP X1 probe connected to INPUT 1. Probe ground connected to GND. TIME/DIV 1ms VOLT/DIV 1V Auto trigger  Attenuator SETUP High Frequency Cable to Attenuator Output Telephone Analyzer Corded Phone Take off hook	On Marconi, press SINAD until display shows the SINAD vale and press dB. Then press RF GEN and LEVEL. Connect oscilloscope probe ground to GND. Attach the oscilloscope probe to 20dB test point (CN301, pin7). Using the Marconi VARIABLE knob, decrease RF GEN LEVEL until SINAD value is between 7dB and 9dB. This is the 20dB SET POINT.  NOTE: this value will not be stable. Adjust VR301until oscilloscope voltage toggles. NOTE: toggling may not occur at regular intervals. Decrease RF GEN LEVEL until SINAD value decreases by at least 3dB. Check that oscilloscope voltage is high. Now increase REF GEN LEVEL until SINAD value increases by at least 3dB above 20dB SET POINT. Check that oscilloscope voltage is low.

Once aligned, please reassemble the base unit. Also take off the back of the PORTABLE HANDSET and unsolder the MIC lead short wire if you previously installed it.

# **BASE UNIT REFERENCE DRAWING**



# CPU DATA KX-TCM940H-B (Base Unit)

IC201 PQVI4639RA50

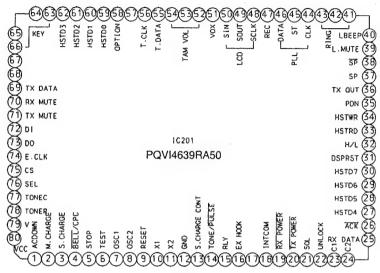


Fig.13

Pin	Description	1/0	High	Low	Pin	Description		I/O	High	Low
1	AC-DOWN	1	AC	Non AC	41	Key TONE/RINGER		0		
2	M. CHARGE		Charge		42	RINGER VOL	i	0	VOL High	VOL Low
3	S. CHARGE	1	Charge		43	RINGER VOL		0	VOL High	
4	BELL/CPC	1	CPC	Bell	44	Clock	PLL	0	-	-
5	STOP		Stop	Active	45	Enable	PLL	0	Active	Normal
6	TEST	1	Normal		46	Data	PLL	0	_	-
7	OSC1 7.952MHz		_	-	47	REC CTL		0	Rec Mode	
8	OSC2 7.952MHz	0	-	-	48	Clock	LCD	0	_	-
9	RESET	- 1	Reset		49	Strobe	LCD		Data strobe	
10	X1 32.768kHz	-	-	-	50	Data	LCD	0	-	-
11	X2 32.768kHz	0	-	-	51	VOX		1	Sound	Non Sound
12	GND		-	-	52	TAM Vol		0		
13	S. CHARGE CONTROL	0	Charge		53	TAM Vol		0		
14	TONE/PULSE	1	Tone	Pulse	54	TAM Vol		0		
15	TR-RLY	0	TR On		55	DATA		0	1	
16	EX-HOOK	ŀ	Ex-Hook		56	CLOCK		0		
17	CURRENT DET	1			57	Option Strobe		0		
18	INTCOM	0	Intercom	Mute	58	Option Strobe		0		
19	RX POWER	0		On	59	D0/Option Strobe		I/O		
20	TX POWER	0		On	60	D1/Key Strobe	1	I/O		
21	SQULCH	1			61	D2/Key Strobe		I/O		
22	UNLOCK	1	Unlock		62	D3/Key Strobe		I/O		
23	COMMON 2 for LCD	0			63	Key/Option In		ı		Key In
24	COMMON 1 for LCD	0			64	Key/Option In		ı		Key In
25	RX-DATA	1			65	Key/Option In		1		Key In
26	DSP ACK	1		ACK	66	Key/Option In		-		Key In
27	D4	1/0			67	TX DATA		0		
28	D5	I/O			68	TX DATA		0		
29	D6	I/O			69	TX DATA		0		
30	D7	I/O			70	RX MUTE		0	Mute	
31	DSP RESET	0	Reset		71	TX MUTE		0	Mute	
32	HST WR	0		Write	72	_ ( _ · _ /	ROM	0		
33	HST RD	0		Read	73	( ,	ROM	ı		
34	HI/LOW	0	High	Low	74		ROM	0		
35	PDN	0	PWR On	PWR Down	75		ROM	О	Active	Disable
36	LINE MUTE	0	Mute		76	CPU Speed Select		l	Fixed	-
37	SP-PHONE	0		SP-Phone	77	DTMF-C Out		0	-	-
38	MIC-MUTE	0	SP-Phone	Mic-Mute	78	DTMF-R Out		Ο	-	-
39	TX-OUT	O	Tx-Out	Mute	79	Vcc		1	-	-
40	TX/LINE Beep	ŏ			80	VTref		-1	Fixed	-
70	7,721,72 2006		L		1					

# **CPU DATA KX-TCM940R-B (Portable Unit)**

IC201 MN151233KZAC

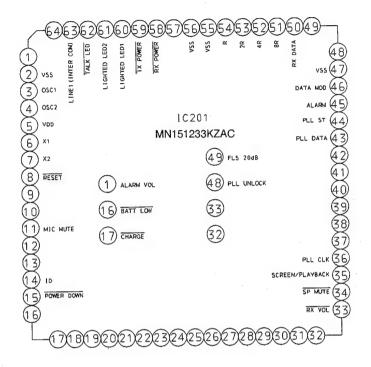
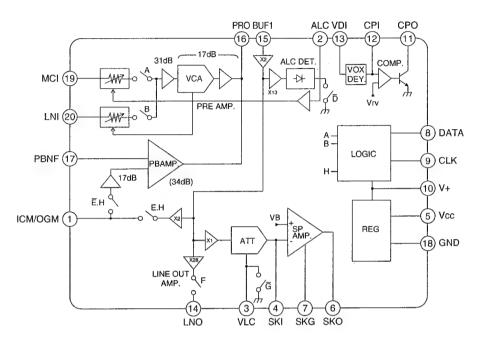


Fig.14

Pin	Description	I/O	High	Low	High-Z	Pin	Description	1/0	High	Low	High-Z
1	ALARM VOL.	0	-	HIGH	LOW	33	RECEPTION VOL.	0	NORMAL	HIGH	-
2	VSS					34	SP-MUTE	0		MUTE	-
3	OSC 1					35	SCREEN LED	0	ON		-
4	OSC 2					36	PLL-CLOCK	0			
5	VDD					37	Not Used				
6	XI					38	Not Used				
7	XO					39	Not Used				
8	RESET	1		(RESET)		40	Not Used	1			
9	Not Used			` '		41	SIRQ	1.			-
10	Not Used		,			42	IRQ	1			-
11	MIC MUTE	0	MUTE		-	43	PLL DATA	0			-
12	Not Used					44	PLL ST	0		ON	-
13	Not Used					45	ALARM	0	i i		-
14	ID (CTL)	- 1		·	• -	46	Not Used				
15	POWER DOWN	ı		DOWN	-	47					-
16	BATT, LOW	1		LOW	-	48	PLL-UNLOCK		UNLOCK		-
17	CHARGE	- 1		CHARGE	-	49	FLS (20)	.		ENABLE	-
18	Not Used					50	RX DATA				-
19	Not Used					51	(TX DATA 4)	0			-
20	Not Used				1	52	(TX DATA 3)	0	1		-
21	STROBE 8 (OPTION)	0	-			53	TX DATA 2	0			
22	STROBE 7 (OPTION)	0	-			54	TX DATA 1	0			-
23	STROBE 6 (KEY)	0	-			55					-
24	STROBE 5 (KEY)	0	-			56		1			-
25	STROBE 4 (KEY)	0	-			57	Not Used				
26	STROBE 3 (KEY)	0				58	RX POWER	0	-	ON	
27	STROBE 2 (KEY)	0	-			59	TX POWER	0	-	ON	
28	STROBE 1 (KEY)	0	-			60	LIGHTED LED 1	0	-	ON	
29	KEY (OPTION) INPUT	1		IN	-	61	LIGHTED LED 2	0	-	ON	
30	KEY (OPTION) INPUT	1		IN	-	62	TALK LED	0	-	ON	
31	KEY (OPTION) INPUT	- 1		IN .	-	63	(INTCOM) LED	0	-	ON	
32	KEY (OPTION) INPUT	I		IN	-	64		0	<u> </u>	<u> </u>	

# **EXPLANATION OF IC TERMINALS (KX-TCM940H-B)**



IC101: PQVISC111815

Fig. 15

#### • Pin Description

Pin No.	Name	Description				
1	ICM/OGM	I/O for ICM head. I/O impedance is approximately 20 kohm that keeps high impedance sufficient for head				
		load.				
2	ALC	For connection to CR for ALC detection smoothing. The time constant of the CR decides the recovery time				
		The attack time depends on the values of C and internal resistance (approx. 8.5 kohm).				
3 VLC Volume control input. The speaker output control		Volume control input. The speaker output controlled by changing the volume resistance between this pin				
		and GND.				
4	SKI	Reverse input of the speaker amplifier. The gain and frequency characteristics are set by external CR.				
		Non-reverse input is biased by internal power source (approx. 1/2 Vcc).				
5	Vcc	Power source of IC except LOGIC part.				
6	SKO	Output of speaker amplifier. Sets frequency characteristics by connecting to Pin 4 in parallel.				
		Speaker's impedance is normally 30 ohms.				
7	SKG	GND speaker amplifier output part.				
8	DATA	Input of control data for mute mode. For serial synchronous input with clock signal.				
9	CLK	Clock input for data input sychronization. Controls shift register by data bit at fall, and latches by reading				
		data at rise.				
10	V+	5.4 V stable output to supply bias with microphone.				
11	CPO	output of comparator. Connected to open-collector of NPN transistor.				
12	CPI	Input of VOX detector comparator. Compares internal reference voltage with gained voltage, and has a bit				
		hysteresis characteristics.				
13	VDI	Input of VOX detector.				
14	LNO	Output of buffer amplifier for line output. Current amplifier.				

Pin No.	Name	Description			
15	BUFI	Inputs of Recording amplifier, line output amplifier, speaker amplifier, and ALC detector. These are input			
		after voltage/radio conversion by CR between this pin and pin 16.			
16	PRO	Output of MIC/LINE amplifier and playback amplifier.			
17	PBNF	Reverse input of playback amplifier for controlling frequency characteristics. The CR network between this			
		pin and Pins 16 and 18 set frequency and gain.			
18	GND	GND for all ICs except speaker amplifier.			
19	MCI	Input of microphone amplifier. The input resistance is normally 33 kohms.			
20	LNI	Input of line amplifier. The same configuration as MCI.			

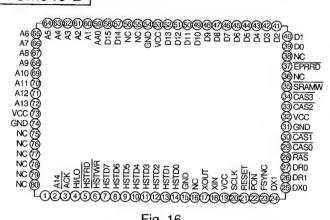


Fig. 16

## Pin Description

Pin No.	Name	Description		
14	HSTDB0 (LSB)	HOST data bus. The HOST writes commands and reads status to/from the D6455A via this bus.		
8~13	HSTDB1∼6	The HI/LO pin selects between the low byte and the high byte of the command/status.		
7	HSTDB7(MSB)	This bus is used for input when HSTWR is low, and for output when HSTRD is low.		
		It has high impedance when HSTWR and HSTRD are high or RESET is high.		
4	HI/LO	High/Low byte select. When this signal is low, the HOST can read/write the low byte of the		
		status/command. When high, the byte is selected.		
5	HSTRD	HOST read. When low, the HOST reads the low/high byte of the status word.		
6	HSTWR	HOST write.		
3	ACK	HOST acknowledge. It goes high when the HOST reads the high byte of the status word.		
20	SCLK	External memory address bus.		
36	FLWR	Flash Write Enable.		
37	FLRD	Flash Read Enable.		
39	D0	External memory data bus.		
40~46	D1~D7			
58	MDB15(MSB)			
75	CS0	Chip Enable for samsung flash.		
77	CS	Chip Select.		
78	ALE	Address Latch Enable for samsung flash.		
79	CLE	Command Latch Enable for samsung flash.		
27	DR0	Serial input for CODEC0 PCM data.		
25	DX0	Serial output for CODEC0 PCM data.		
26	DR1	Serial input for CODEC1 PCM data.		
24	DX1	Serial output for CODEC1 PCM data.		
20	SCLK	Clock output to CODECs.		
18	XIN	Crystal input pin for internal oscillator. The frequency is 36.864MHz.		
17	XOUT	Crystal output pin for internal oscillator.		
5,31,54,74	GND	Ground Pin		
9,32,73,53	Vcc	+5V battery backed-up power supply input. This power source should be connected to the ARAM.		
22	PDN	Vcc power fail sensor input. When a low level is detected on this pin, D6455A enters power-down mode.		

IC701: PQVID6471A

IC702: PQVIKM29N4TC

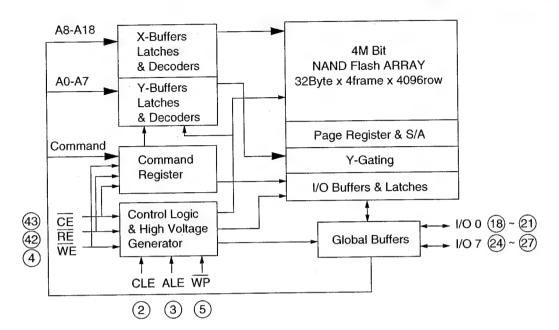


Fig. 17

#### Pin Description

• Fill Description						
Pin No.	Name	Description				
2	CLE	The CLE input controls the path activation for commands sent to the command register. When active high, commands are latched into the command register through the I/O ports on the rising edge of the WE signal.				
3	ALE	The ALE input controls the path activation for address and input data to the internal address/data registers. Addresses are latched on the rising edge of WE with ALE high, and input data is latched when ALE is low.				
4	WE	The WE input controls writes to the I/O port Commands, address and data are latched on the rising edge of the WE pulse.				
5	WP	The WP pin provides inadvertent write/erase protection during power transitions. The internal high voltage generator is reset when the WP pin is active low.				
18~21 24~27	I/O 0~I/O 7	The I/O pins are used to input command, address and data, and to outputs data during read operations. The I/O pins float to high-z when the chip is deselected or the outputs are disabled.				
41	R/B	The R/B output indicates the status of the device operation. When low, it indicates that a program, erase or frame access in read operation is in process and return to high state upon completion. It is an open drain output and does not float to high-z condition when the chip is deselected or outputs are disabled.				
42	RE	The RE input is the sequential data-out control, and when active drives the data onto the I/O bus. Data valid REA after the falling edge of RE which also increments the internal column address counter by or				
43	CE	The CE input is the device selection control. When CE goes high during a read operation the device is returned to standby mode. However, when the device is in the busy state during program or erase, CE high is ignored, and does not return the device to standby mode.				

IC703: PQVIMS7533HK

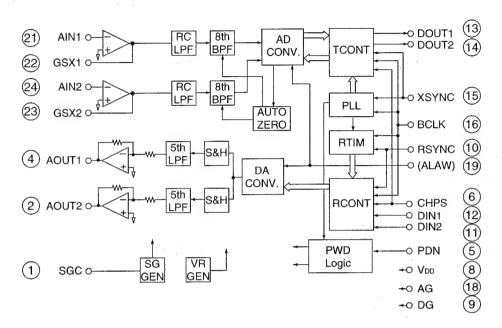


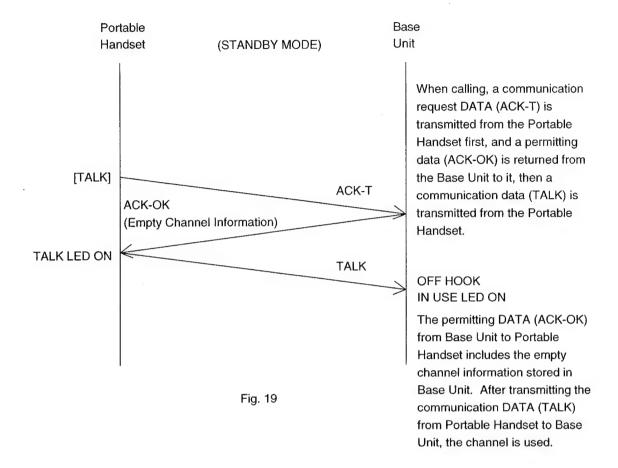
Fig. 18

#### Pin Description

Pin No.	Name	Description			
1	SGC	Bypass capacitor pin for signal ground electrical potential circuit.			
2, 4	AOUT, AOUT2	RX analog output pin.			
5	PDN	Power down control signal input pin.			
6	CHPS	Selecting signal input pin for PCM input/output mode.			
8	VDD	+5V power supply input pin.			
9	DG	Ground pin for Digital signal.			
10	PSYNC	RX synchronization signal input pin.			
11, 12	DIN1, DIN2	When selecting the parallel mode, PCM signal is inputted.			
13, 14	DOUT1, DOUT2	When selecting the parallel mode, PCM signal is outputted.			
15	XSYNC	TX synchronization signal input pin.			
16	BCLK	Shift lock signal input pin for PCM signal.			
18	AG	Ground pin for analog signal.			
19	ALAW	Control signal input pin that select the compounder.			
21~24	AIN1, AIN2 GSX1, GSX2	TX analog input pin and TX level adjustment pin.			

# **EXPLANATION OF CPU DATA COMMUNICATION**

## 1. Calling



# 2. To terminate

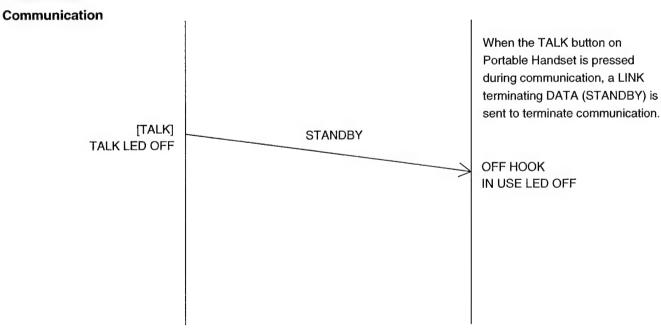
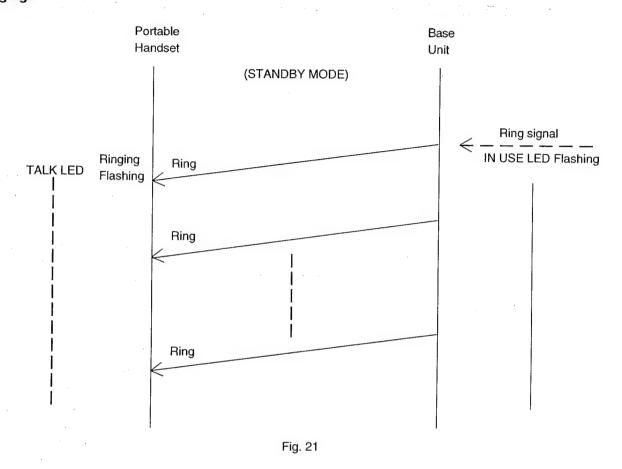


Fig. 20

## 3. Ringing



After detecting the Ring signal from circuit, Base Unit sends a ring signal DATA (Ring), then the Portable Handset starts ringing.

## 4. Ports for transmitting and receiving of data

Portable Handset: transmitting ... 54 Pin receiving ... 50 Pin

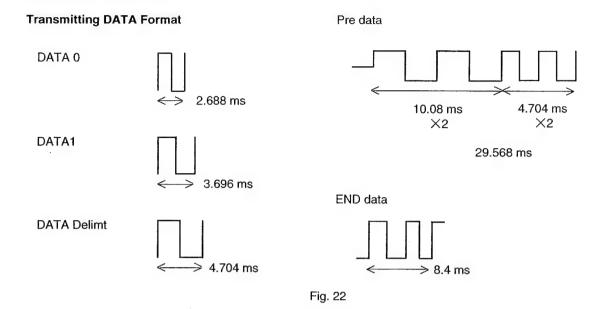
Base Unit: transmitting ... 69 Pin receiving ... 25 Pin

# 5. Waveform of DATA used for cordless transmission and reception

The DATA which is transmitted from the Portable Handset to the Base Unit is combination of DATA 0, DATA 1, DATA Delimt, Pre data and End data.

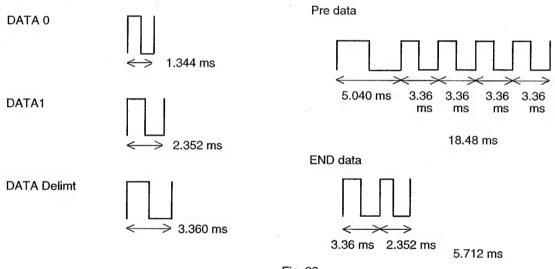
The DATA which is transmitted from the Base Unit to the Portable Handset is combination of DATA 0, DATA 1, DATA Delimt, Pre data and End data.

#### **PORTABLE HANDSET**



## BASE UNIT

#### **Transmitting DATA Format**



## Fig. 23

## 6. When LINKing

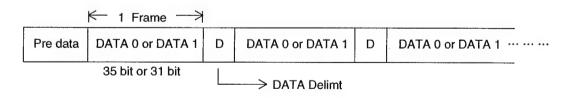


Fig. 24

When LINKing from the Portable Handset (when becoming STBY to TALK), DATA is transmitted in above format. The combined portion of DATA 0 and DATA 1 is transmitted in LINK requesting DATA (35bit) format first. Then, when LINK OK (ACK-OK) DATA (19bit) is returned from the Base Unit, it is sent as LINK from DATA after changing the combination of DATA 0 and DATA 1. And the DATA Delimt is between each Frame as a stop.

The contents of LINK requesting DATA and LINK form DATA are different depending on each operation.

#### 7. Pulse Dial

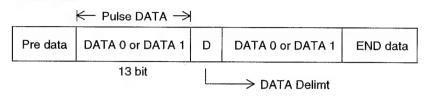
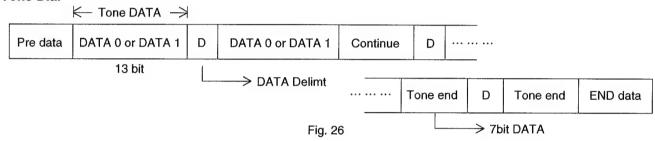


Fig. 25

When executing Pulse Dial, the Pulse Dial DATA is transmitted from the Portable Handset to the Base Unit in above format. The combination of DATA 0 and DATA 1 are changed by each Dial No. And the DATA Delimt is between each Frame as a stop. The number of Frame is 2.

#### 8. Tone Dial



When executing Tone Dial, Tone Dial DATA is transmitted from the Portable Handset to the Base Unit in above format. The DATA is changed by Dial No. as same as Pulse Dial. When Tone Dialing, DATA (Continue DATA) that the key is pressed continuously is sent to the Base Unit during the key is pressed. When depressing the key, the TONE Dial exterminating DATA (Tone end DATA) is send, and the END data is sent finally.

## NOTE

1,000,000 kinds of the security code are available for the model KX-TCM940-B. Each time the portable handset is set on the cradle of the base unit (for charging), the CPU automatically change the security code.

# FREQUENCY TABLE (MHz)

CH	Base Unit TX	Base Unit RX	CH	Base Unit TX	Base Unit RX
	Portable Handset RX	Portable Handset TX		Portable Handset RX	Portable Handset TX
1	902.100 MHz	926.100 MHz	16	902.850 MHz	926.850 MHz
2	902.150 MHz	926.150 MHz	17	902.900 MHz	926.900 MHz
3	902.200 MHz	926.200 MHz	18	902.950 MHz	926.950 MHz
4	902.250 MHz	926.250 MHz	19	903.000 MHz	927.000 MHz
5	902.300 MHz	926.300 MHz	20	903.050 MHz	927.050 MHz
6	902.350 MHz	926.350 MHz	21	903.100 MHz	927.100 MHz
7	902.400 MHz	926.400 MHz	22	903.150 MHz	927.150 MHz
8	902.450 MHz	926.450 MHz	23	903.200 MHz	927.200 MHz
9	902.500 MHz	926.500 MHz	24	903.250 MHz	927.250 MHz
10	902.550 MHz	926.550 MHz	25	903.300 MHz	927.300 MHz
11	902.600 MHz	926.600 MHz	26	903.350 MHz	927.350 MHz
12	902.650 MHz	926.650 MHz	27	903.400 MHz	927.400 MHz
13	902.700 MHz	926,700 MHz	28	903.450 MHz	927.450 MHz
14	902.750 MHz	926.750 MHz	29	903.500 MHz	927.500 MHz
15	902.800 MHz	926.800 MHz	30	903.550 MHz	927.550 MHz

# CIRCUIT BOARD (KX-TCM940H-B) [DSP P.C.BOARD]

# (Component View)

Α

В

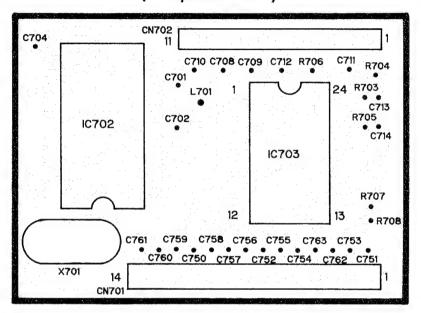
С

D

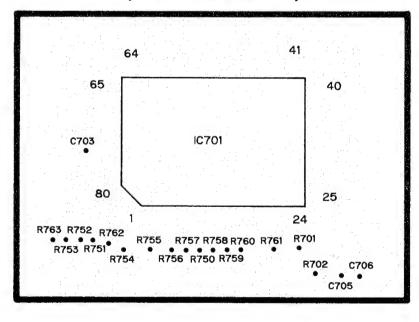
Ε

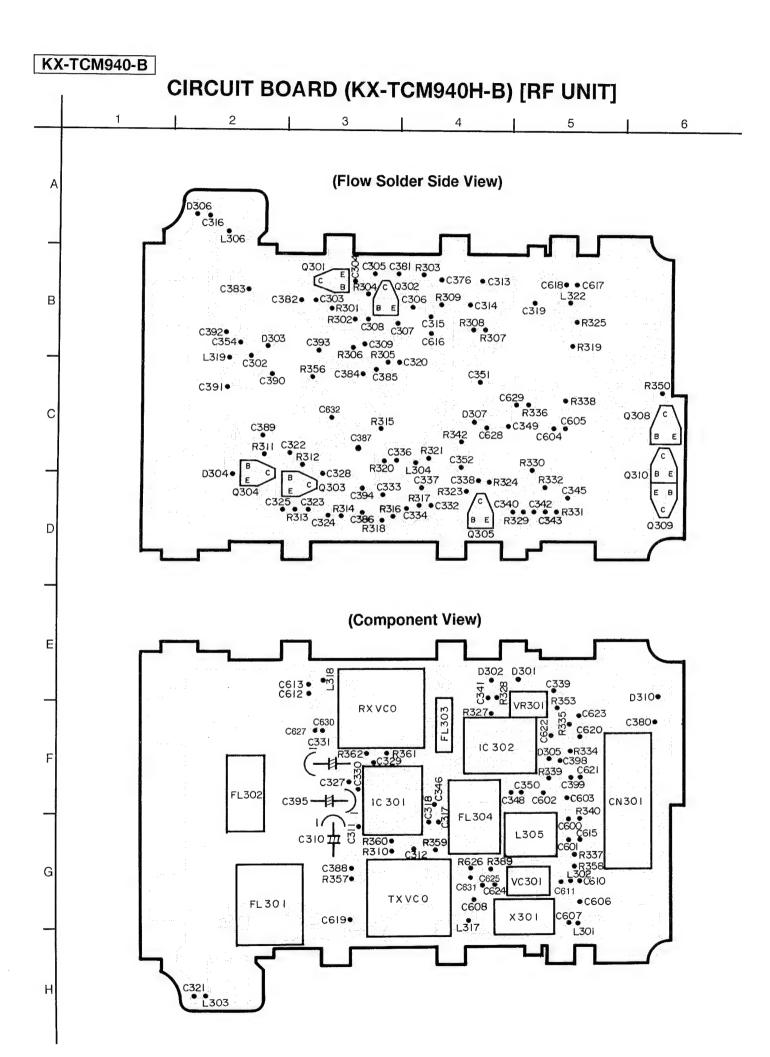
G

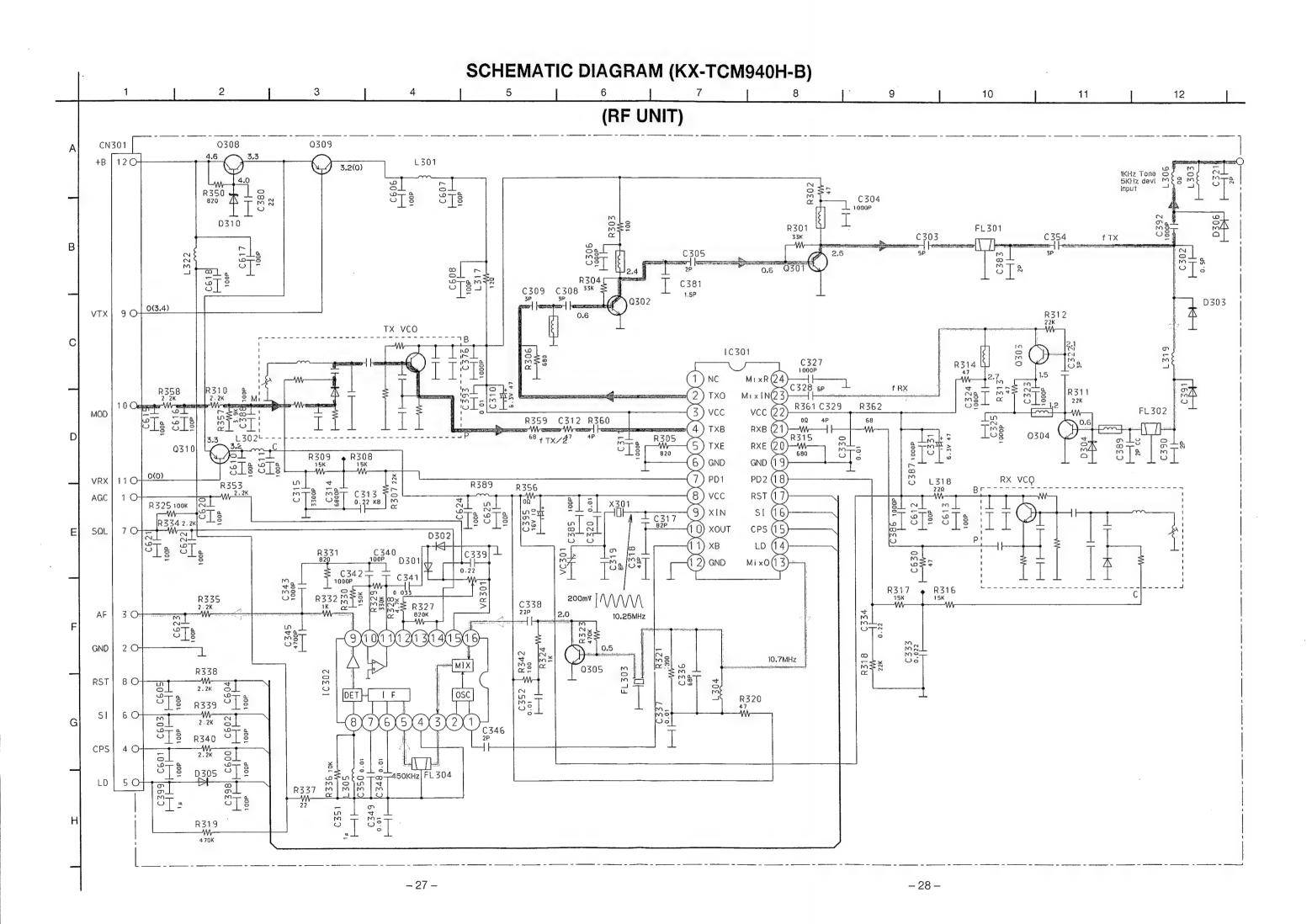
Н

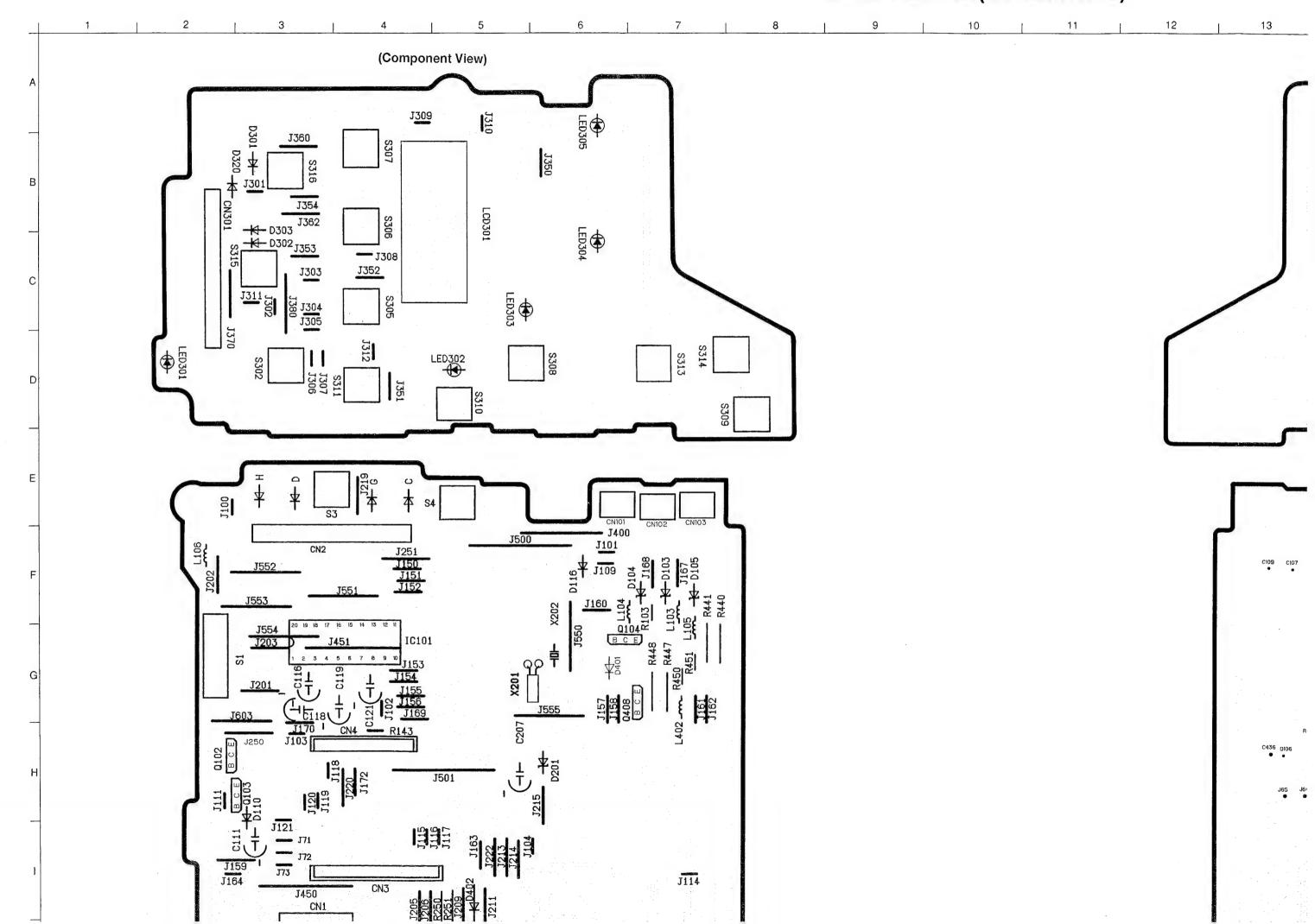


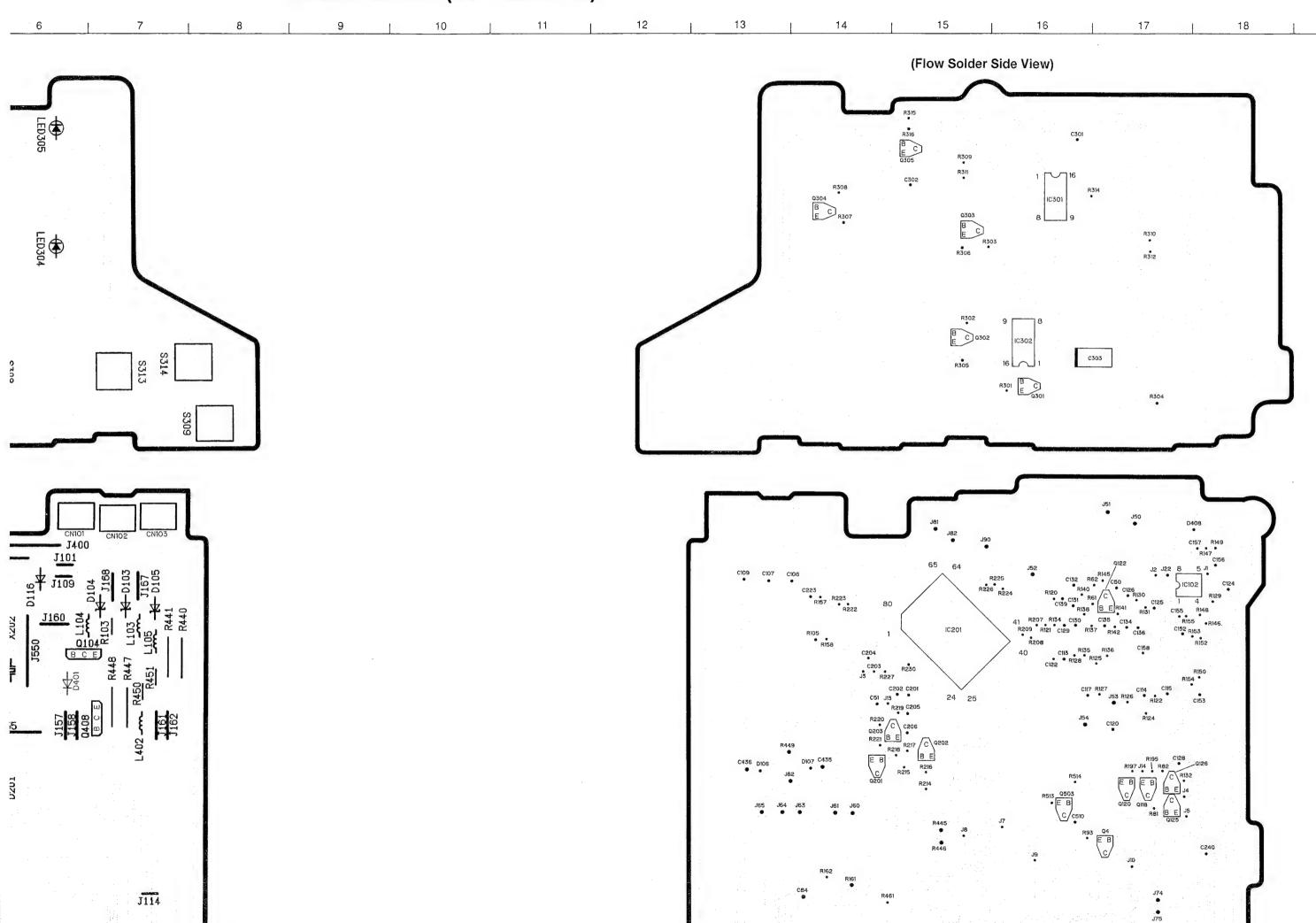
# (Flow Solder Side View)

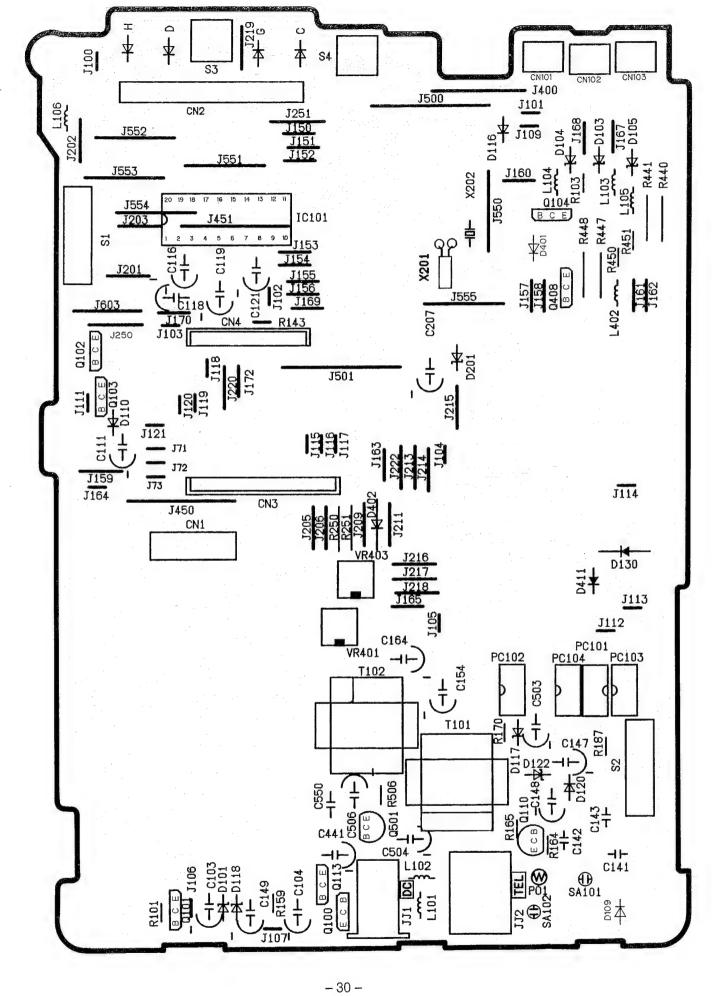


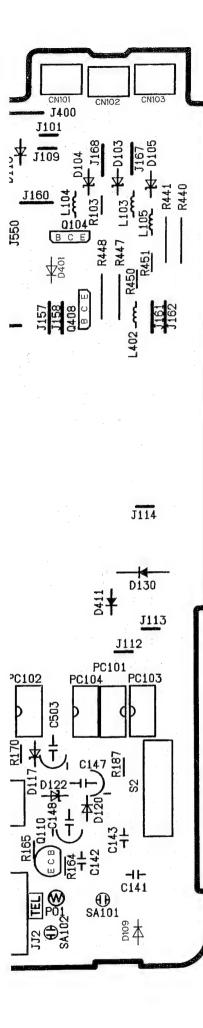


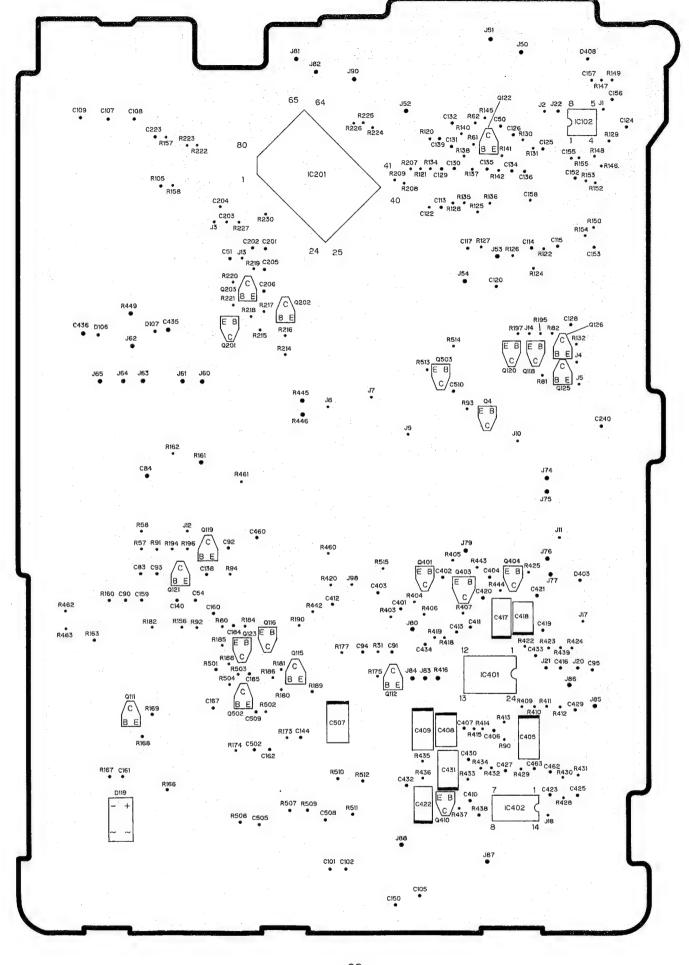




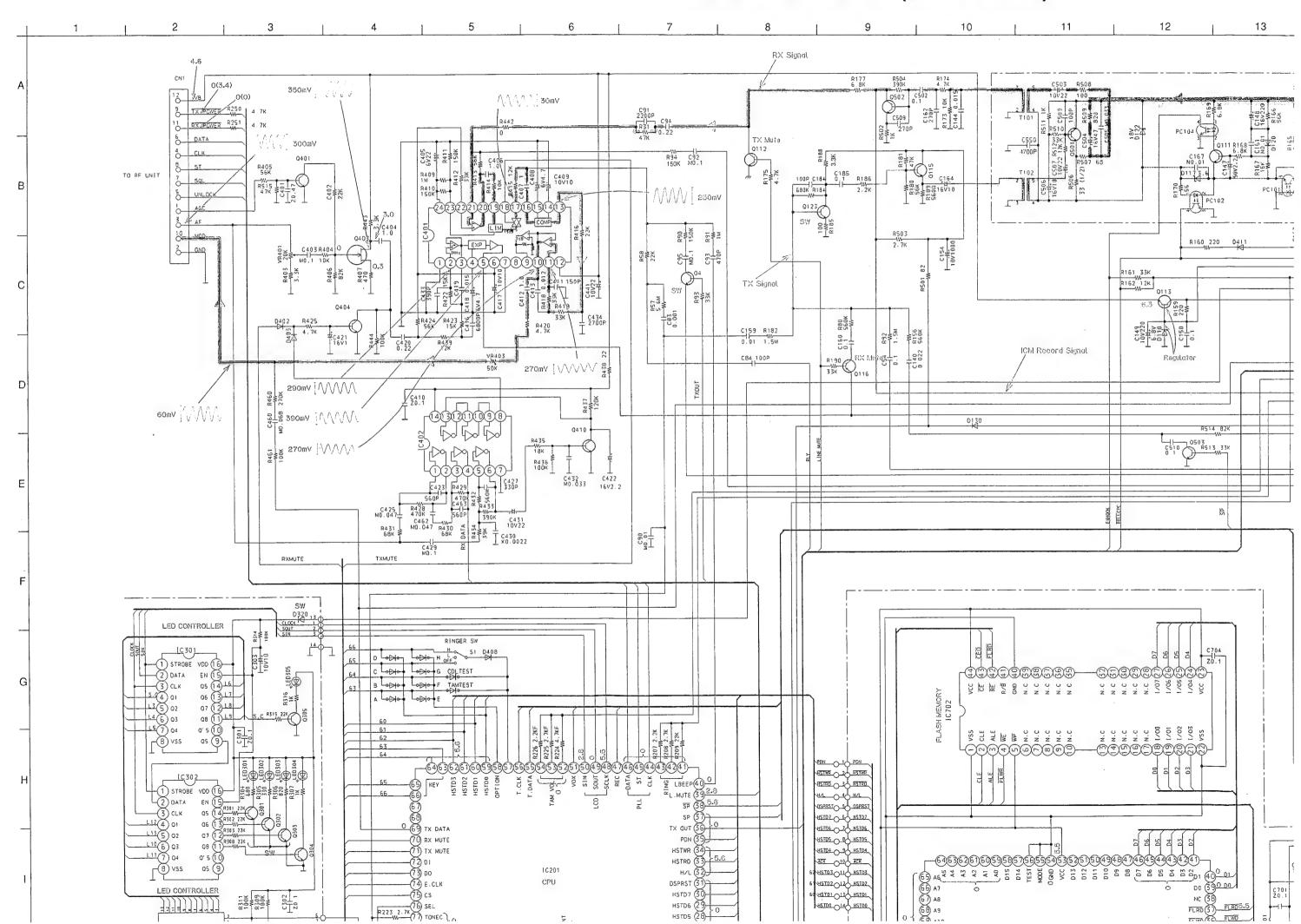




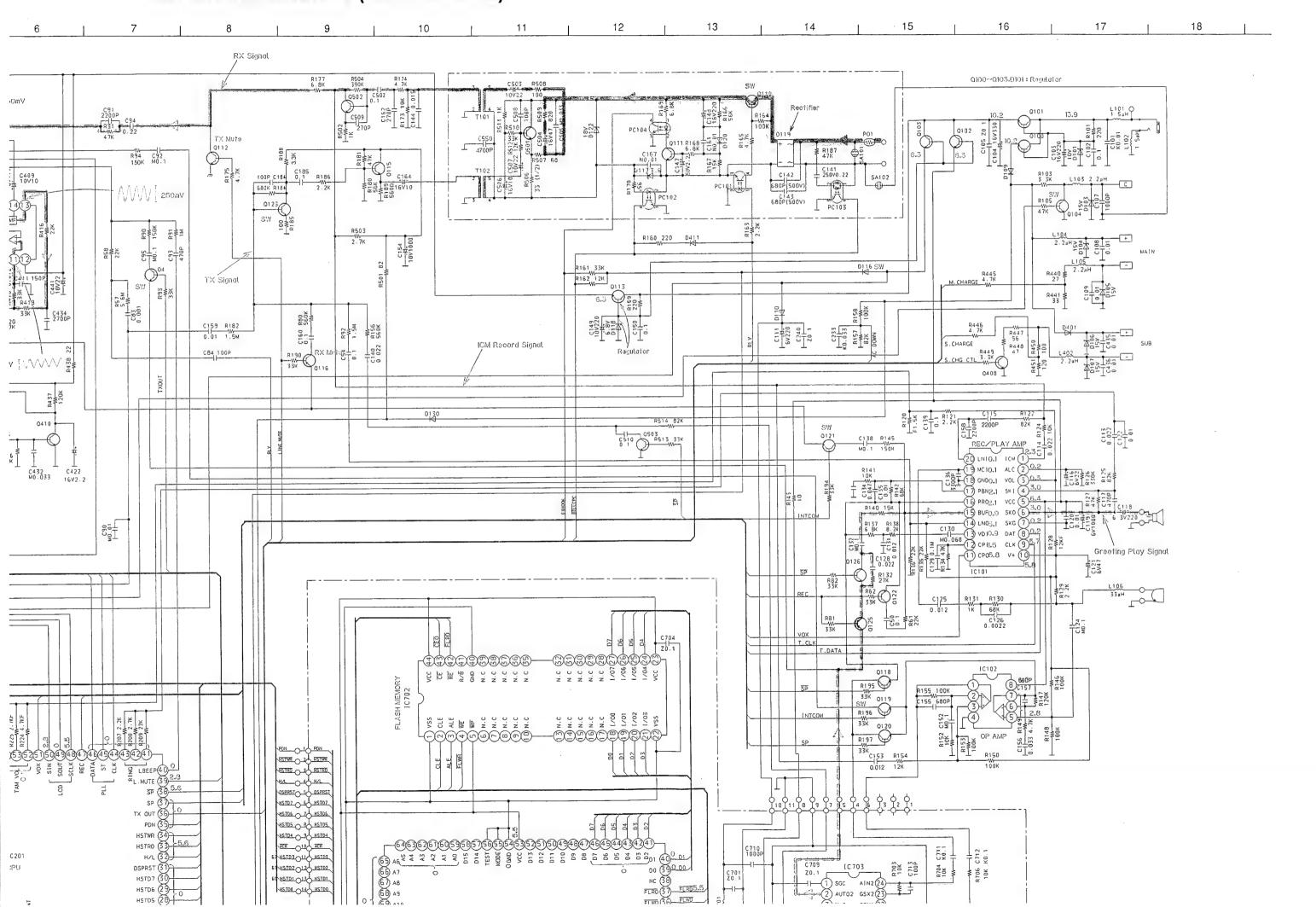


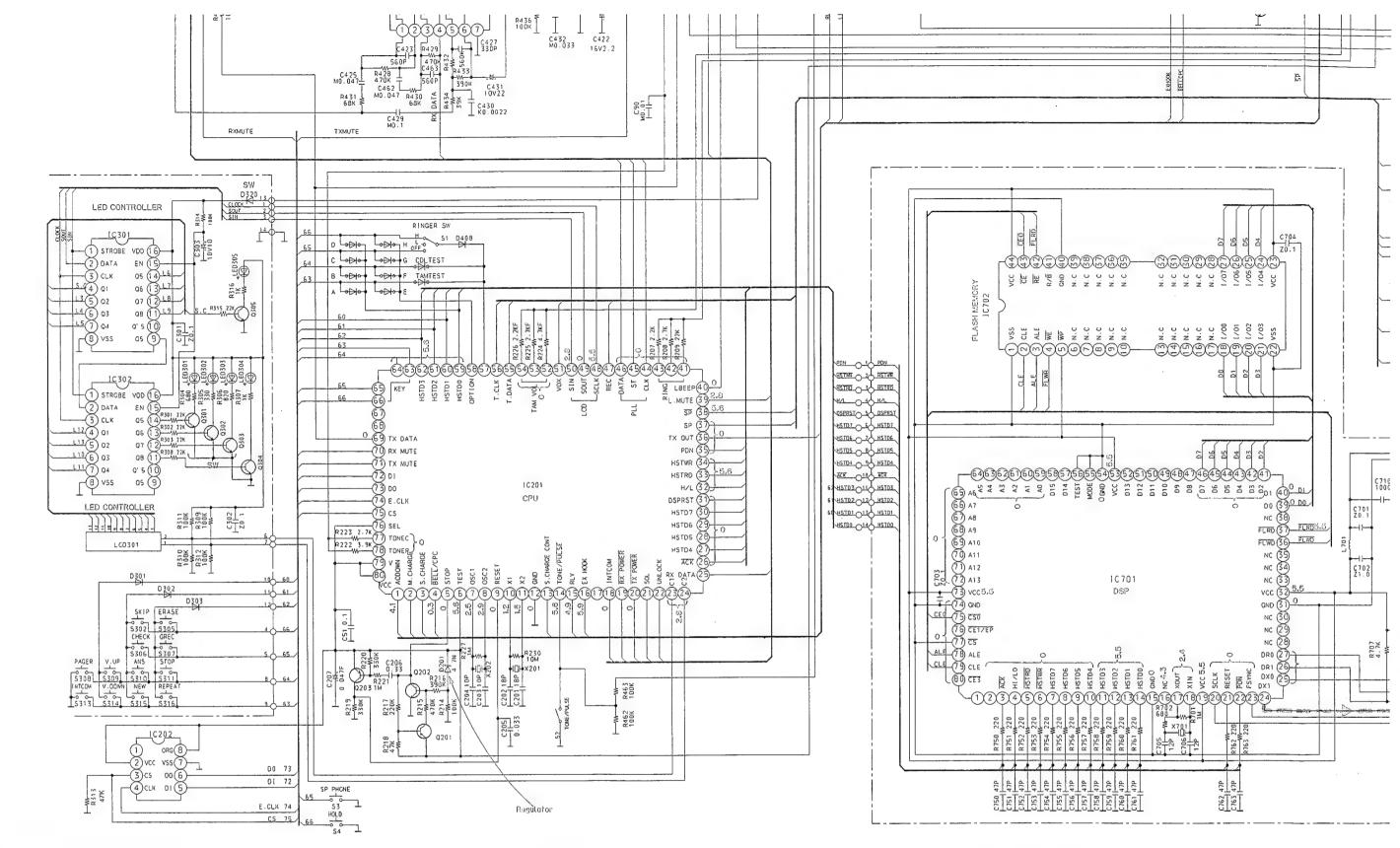


# SCHEMATIC DIAGRAM (KX-TCM940H-B)



# SCHEMATIC DIAGRAM (KX-TCM940H-B)





#### Notes:

- 1. S1: Ringer Selector Switch
- 2. S2: Dialing Mode Selector Switch
- 3. S3: Digital SP-Phone Switch
- 4. S4: Hold Switch
- 5. S302: Skip Switch

- 6. S305: Erase Switch
- 7. S306: Greeting Check Switch
- 8. S307: Greeting Record Switch
- 9. S308: Pager Call Switch
- 10. S309: FlashVolume (Up) Switch
- 11. S311: Stop Switch
- 12. S313: Locator/Intercom Switch
- 13. S314: Volume (Down) Switch
- 14. S315: New Message Switch
- 15. S316: Repeat Switch

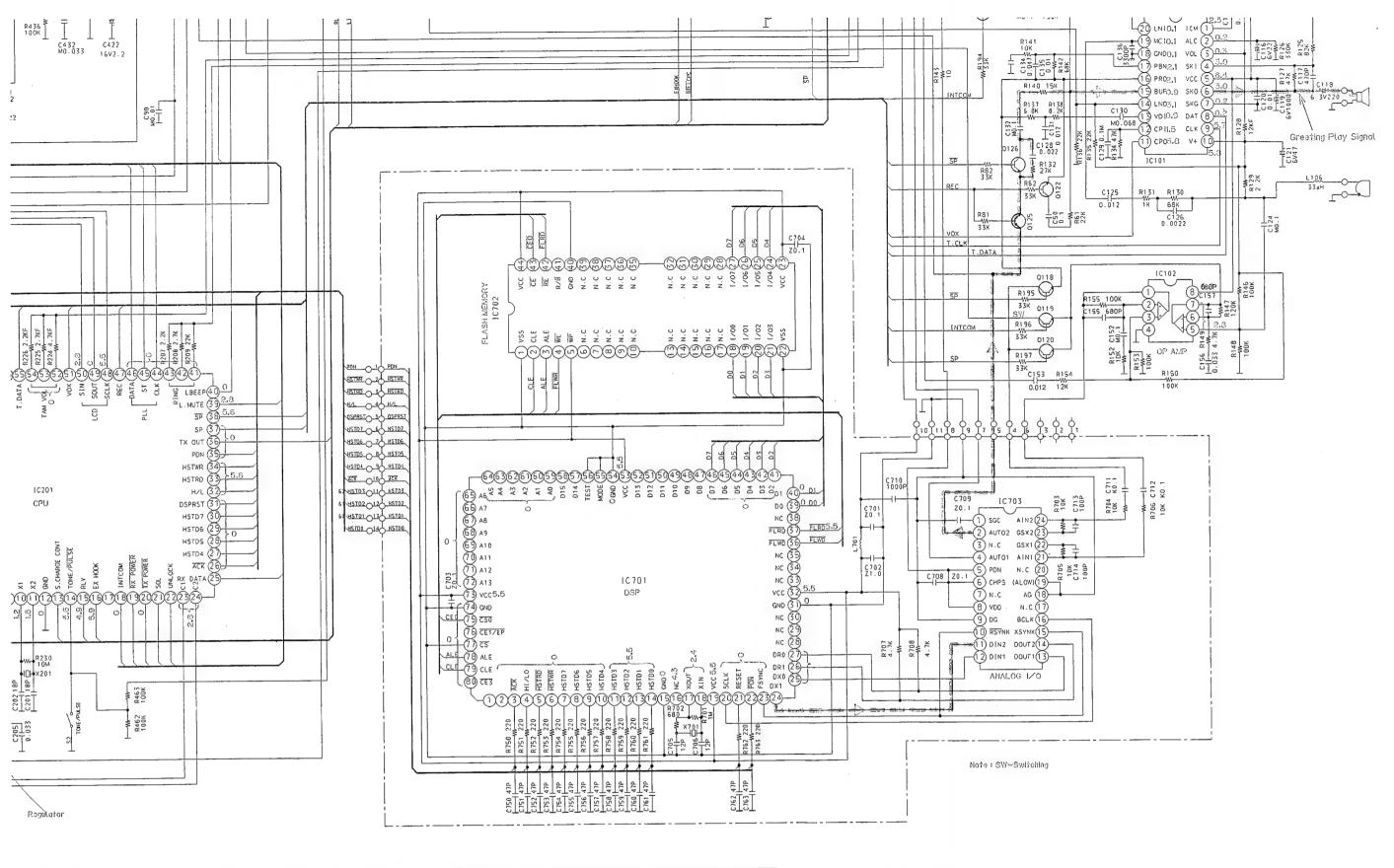
# 16. DC voltage measurements are taken with voltmeter from the negative voltage line.

## Important Safety Notice:

The shaded area on this schematic diagram incorporates special features important for protection from fire and electrical shock hazards.

When servicing it is essential that only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

This schematic diag modified at any tim development of nev



- 1: Stop Switch
- 3: Locator/Intercom Switch
- 4: Volume (Down) Switch 5: New Message Switch
- 6: Repeat Switch
- 16. DC voltage measurements are taken with voltmeter from the negative voltage line.

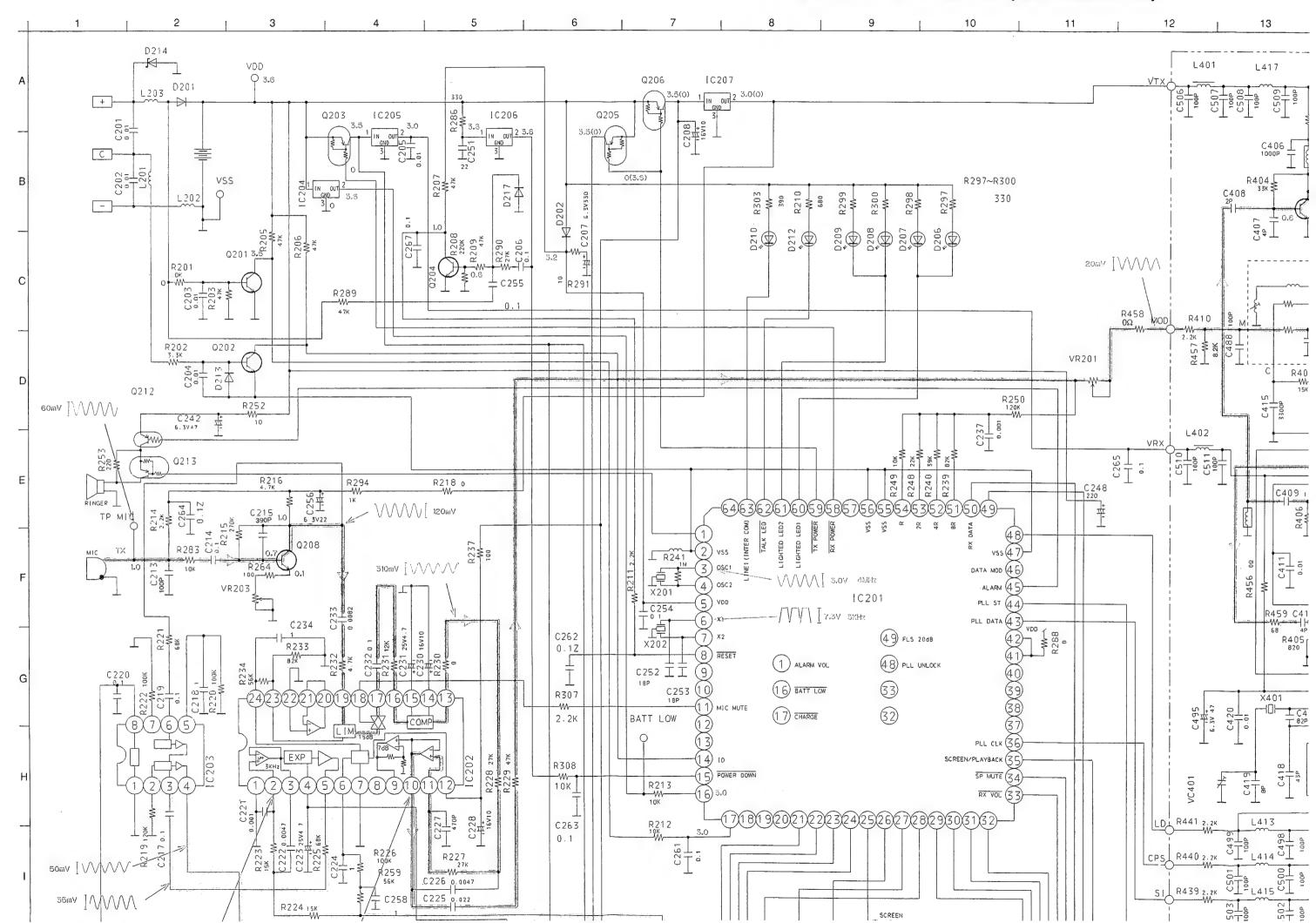
# Important Safety Notice:

The shaded area on this schematic diagram incorporates special features important for protection from fire and electrical shock hazards.

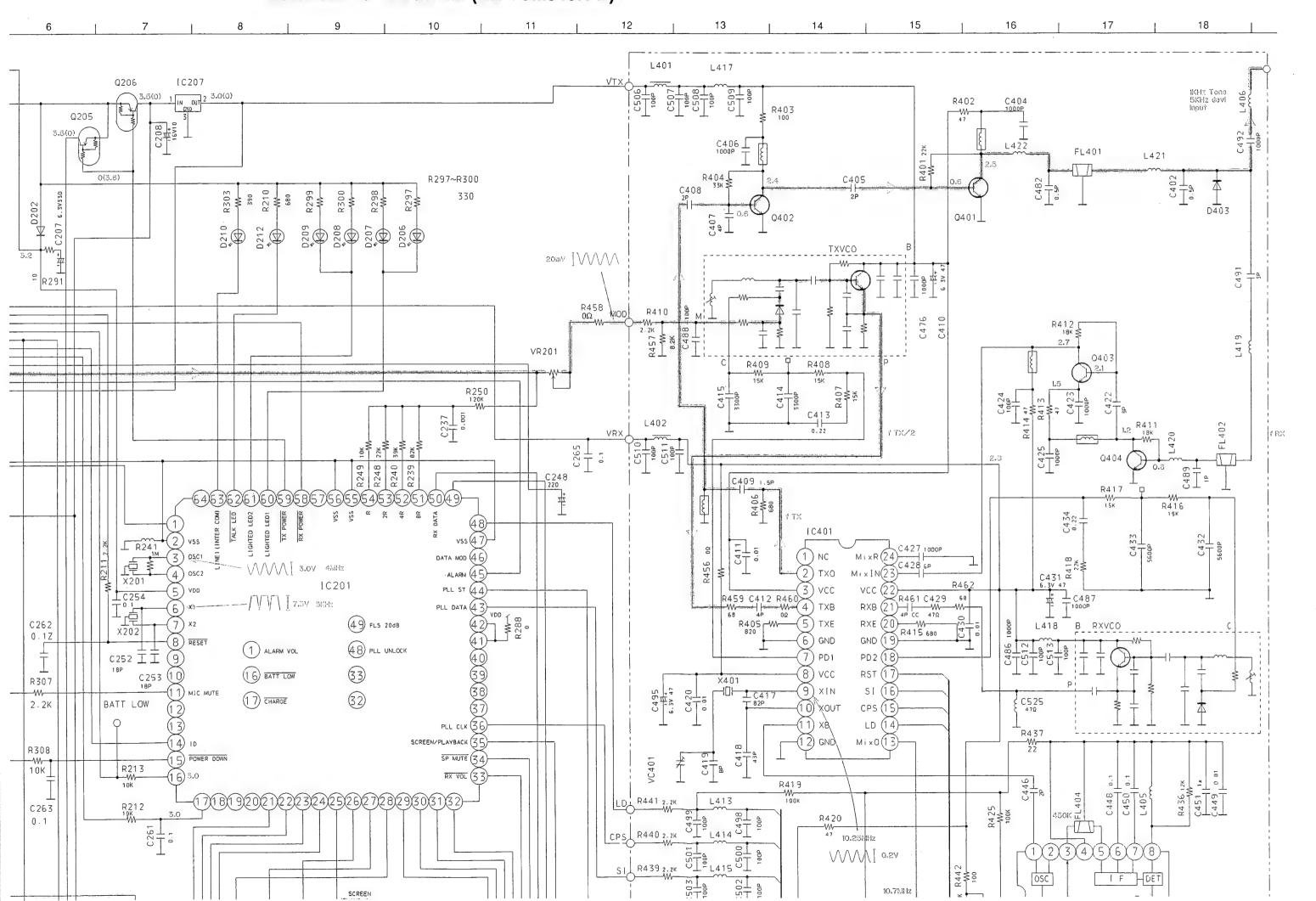
When servicing it is essential that only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

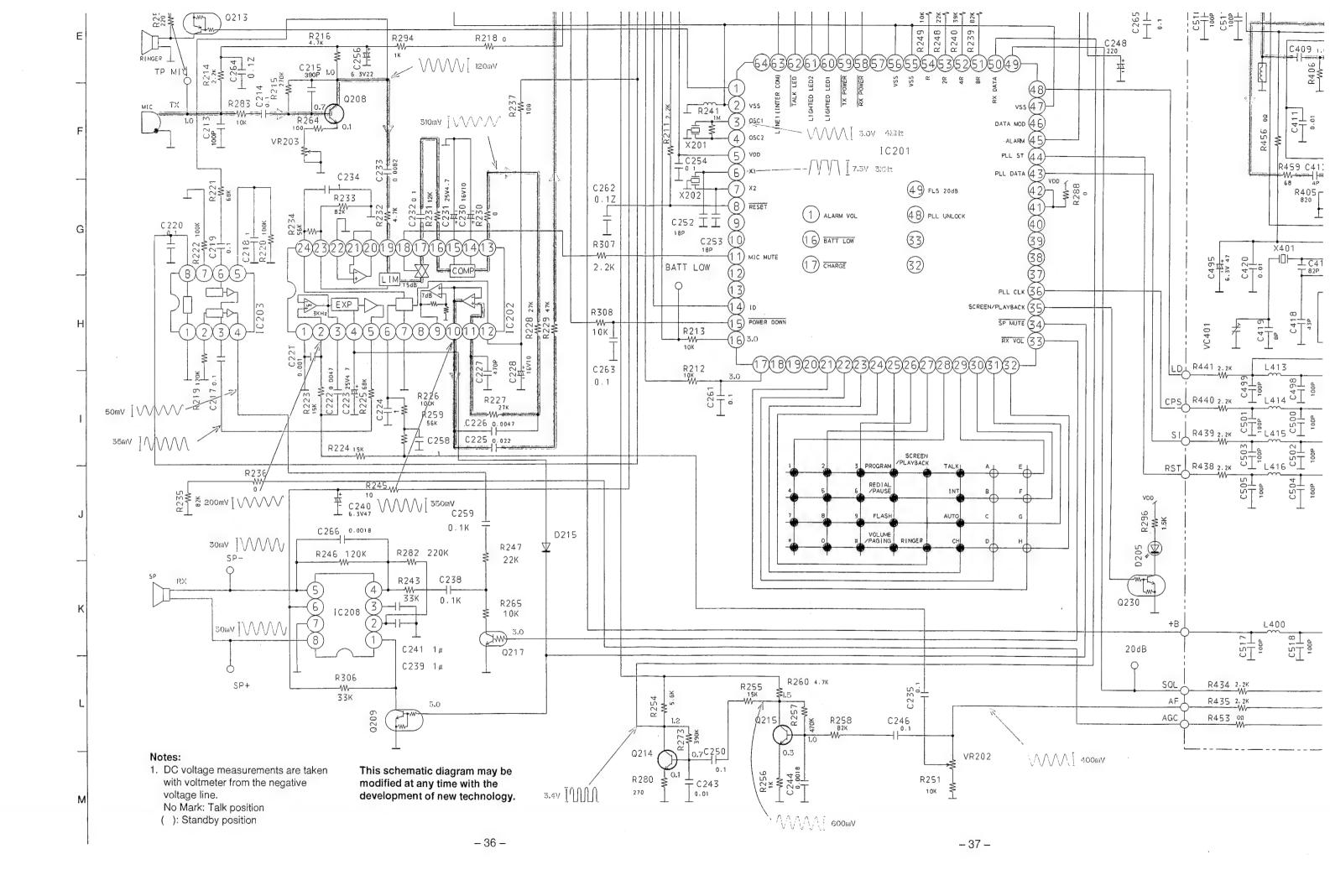
This schematic diagram may be modified at any time with the development of new technology.

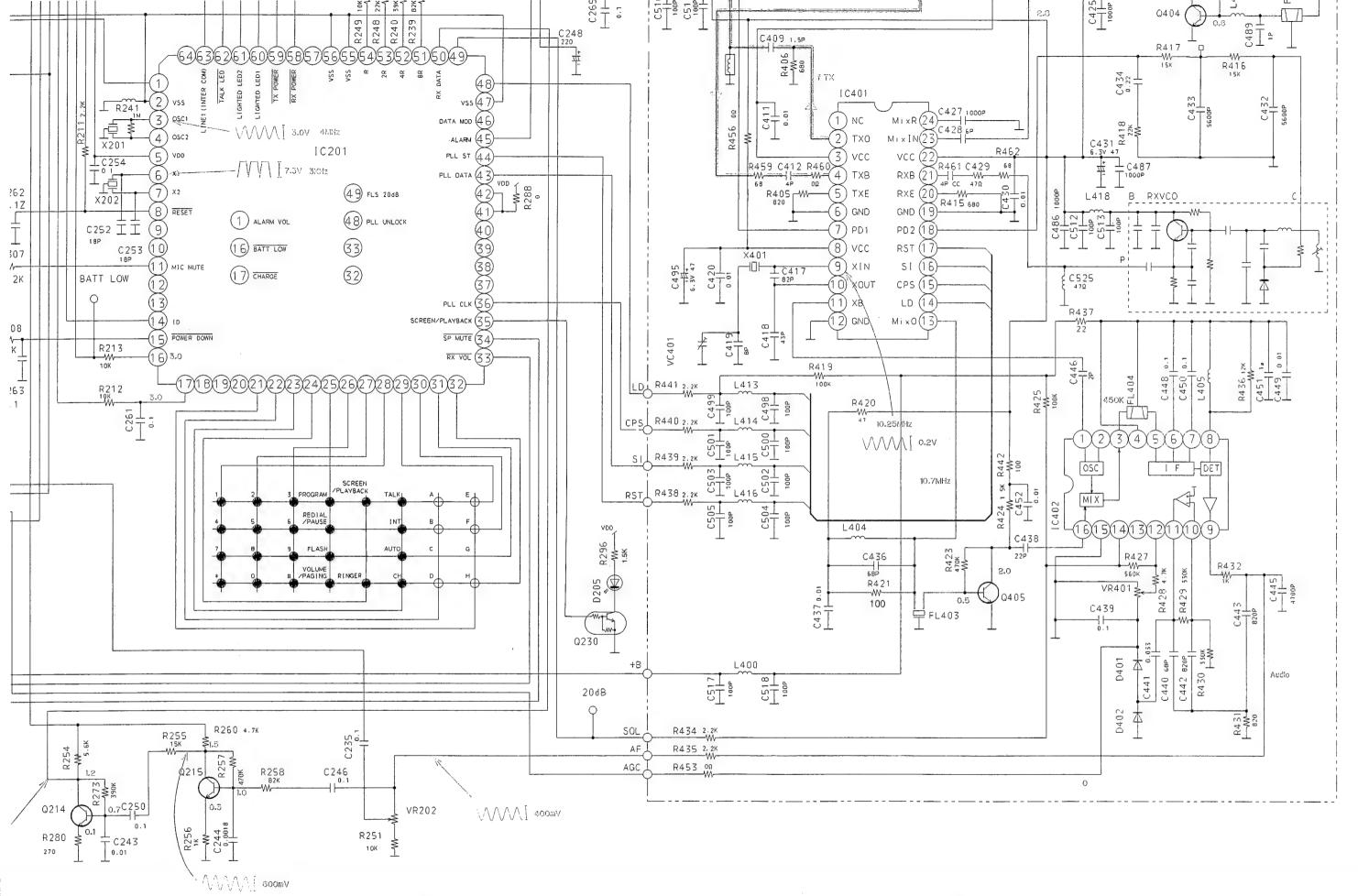
# SCHEMATIC DIAGRAM (KX-TCM940R-B)



# SCHEMATIC DIAGRAM (KX-TCM940R-B)







**CIRCUIT BOARD (KX-TCM940R-B)** 11 R259 C220 C218 C258 R220 R224 R235 C441 R428 VR401 C439 RXVCO IC202 L413 g503 IC401 ●R439 ●R438 R250 R239 49

•R240

•R248

•R249 FL404 IC201 R460 C412 R459 R410 C520 C526 R206 VC401 C516 •J208 C508 TXVCO FL401 X401 RINGER R308 IC206 - 39 -**- 40 -**

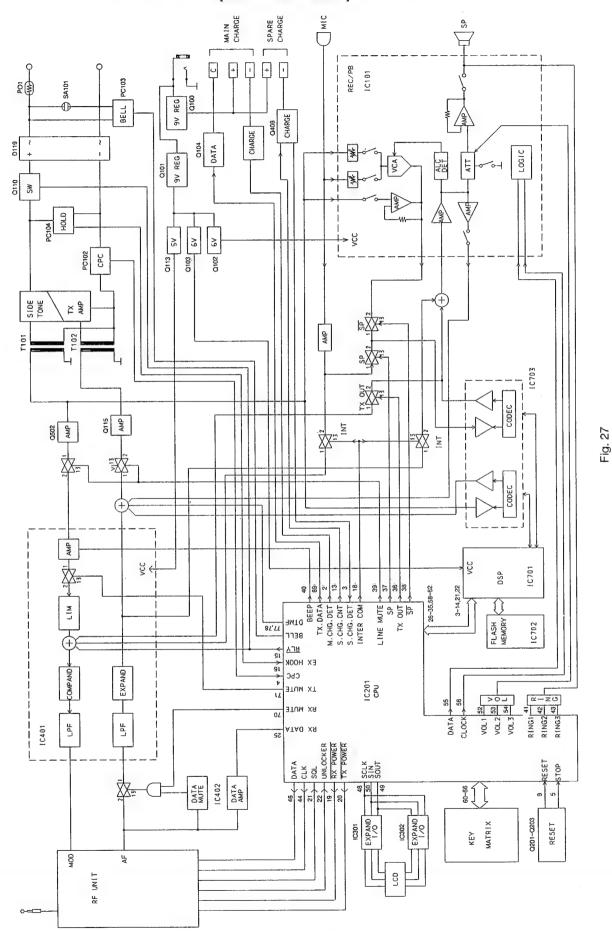
KX-TCM940-B

KX-TCM940-B



# BLOCK DIAGRAM (KX-TCM940H-B)

(Main P.C. Board)



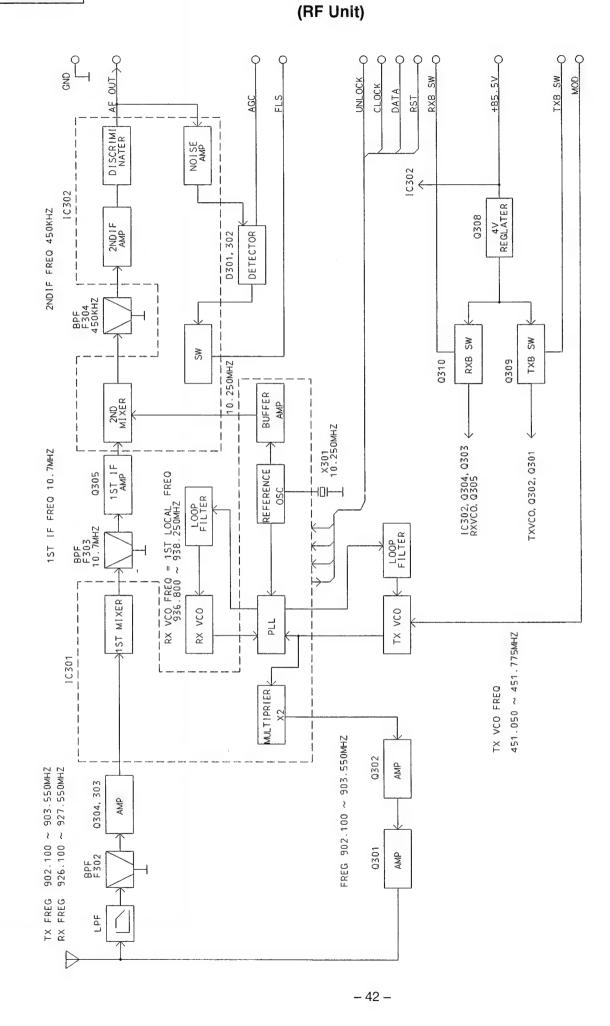


Fig. 28

## **NEW CIRCUIT OPERATION (KX-TCM940H-B)**

#### SP-PHONE RX CIRCUIT

#### **Circuit Operation:**

Telephone Line  $\rightarrow$  R508  $\rightarrow$  C503  $\rightarrow$  T101  $\rightarrow$  R174  $\rightarrow$  C502  $\rightarrow$  Q502  $\rightarrow$  R154  $\rightarrow$  C153  $\rightarrow$  pin ③ of IC102  $\rightarrow$  pin ① of IC102  $\rightarrow$  C712  $\rightarrow$  R706  $\rightarrow$  pin ② of IC703  $\rightarrow$  pin ③ of IC703  $\rightarrow$  pin ③ of IC703  $\rightarrow$  pin ② of IC701  $\rightarrow$  pin ② of IC701  $\rightarrow$  pin ① of IC703  $\rightarrow$  pin ② of IC703  $\rightarrow$  Emitter of Q125  $\rightarrow$  Collector of Q125  $\rightarrow$  R132  $\rightarrow$  C128  $\rightarrow$  C132  $\rightarrow$  R140  $\rightarrow$  pin ⑤ of IC101  $\rightarrow$  pin ⑥ of IC101  $\rightarrow$  C118  $\rightarrow$  Speaker.

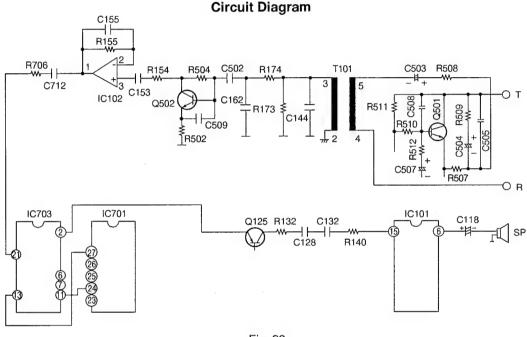


Fig. 29

#### SP-PHONE TX CIRCUIT

#### **Circuit Operation:**

MIC  $\rightarrow$  L106  $\rightarrow$  C124  $\rightarrow$  pin 5 of IC102  $\rightarrow$  pin 7 of IC102  $\rightarrow$  Emitter of Q120  $\rightarrow$  Collector of Q120  $\rightarrow$  C712  $\rightarrow$  R706  $\rightarrow$  pin 2 of IC703  $\rightarrow$  pin 3 of IC703  $\rightarrow$  pin 3 of IC703  $\rightarrow$  pin 4 of IC703  $\rightarrow$  R514  $\rightarrow$  C140  $\rightarrow$  R156  $\rightarrow$  Base of Q123  $\rightarrow$  Collector of Q123  $\rightarrow$  R186  $\rightarrow$  C185  $\rightarrow$  Base of Q115  $\rightarrow$  Emitter of Q115  $\rightarrow$  C164  $\rightarrow$  R178  $\rightarrow$  T102  $\rightarrow$  C507  $\rightarrow$  R512  $\rightarrow$  Q501  $\rightarrow$  Telephone Line

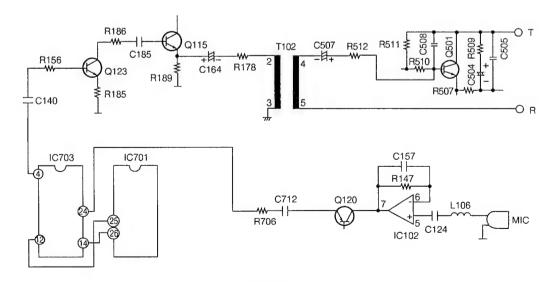


Fig. 30

## DSP (Digital Speech/Signal Processing) CIRCUIT

#### **General Description:**

(IC701~IC703) is a digital speakerphone/speech/signal processing system that implements all the functions of speech compression, record and playback, and memory management required in a digital telephone answering machine.

The DSP system is fully controlled by a host processor (IC201), via 8 bit interface. The host processor provides activation and control of all that functions, such as speech Recording, Playback, Tone detecting and Line Monitoring.

The DSP system comprises of following.

- a Digital Signal Processor which includes the firmware implemented functions.
  - a Codec (IC703), which is used as the analog I/O interface.
  - a FLASH MEMORY (IC702), which is used for stored voice messages and synthesized voice.

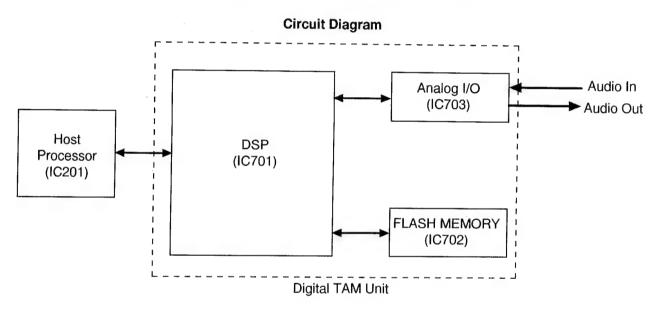


Fig. 31

#### · Voice Message Recording

The DSP system use a proprietary speech compression technique to record and store voice message in FLASH MEMORY (IC702). An error correction algorithm is used to enable playback of these messages from the FLASH MEMORY (IC702).

#### DTMF Detection

The DTMF detection is implemented by the DSP system in software. The DTMF detection is performed during Record, Playback, and Line Monitoring modes of operation.

#### Synthesized Voice

The DSP implements synthesized Voice, utilizing the built in speech detector and an FLASH MEMORY (IC702), which stored the vocabulary.

#### **GREETING RECORDING CIRCUIT**

#### **Circuit Operation:**

 $\begin{array}{c} \text{MIC} \rightarrow \text{L106} \rightarrow \text{R130} \rightarrow \text{R131} \rightarrow \text{C125} \rightarrow \text{pin} \quad \textcircled{19} \quad \text{of IC101} \rightarrow \text{pin} \quad \textcircled{16} \quad \text{of IC101} \rightarrow \text{Q118} \rightarrow \\ \hline \text{C711} \rightarrow \text{R704} \rightarrow \text{pin} \quad \textcircled{20} \quad \text{of IC703} \rightarrow \text{pin} \quad \textcircled{10} \quad \text{of IC703} \rightarrow \text{pin} \quad \textcircled{20} \quad \text{of IC701} \\ \end{array} \\ \begin{array}{c} \text{C711} \rightarrow \text{R704} \rightarrow \text{pin} \quad \textcircled{20} \quad \text{of IC703} \rightarrow \text{pin} \quad \textcircled{10} \quad \text{of IC703} \rightarrow \text{pin} \\ \end{array}$ 

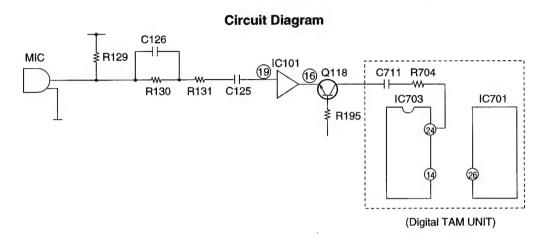


Fig. 32

#### **GREETING PLAY BACK CIRCUIT**

#### **Circuit Operation:**

Pin ② of IC701  $\rightarrow$  pin ① of IC703  $\rightarrow$  pin ② of IC703 (Digital TAM UNIT)  $\rightarrow$  emitter of Q125  $\rightarrow$  collector of Q125  $\rightarrow$  emtter of Q126  $\rightarrow$  collector of Q126  $\rightarrow$  R140  $\rightarrow$  C132  $\rightarrow$  pin ⑤ of IC101  $\rightarrow$  pin ④ of IC101  $\rightarrow$  C54  $\rightarrow$  R92  $\rightarrow$  base of Q123  $\rightarrow$  collector of Q123  $\rightarrow$  Base of Q115  $\rightarrow$  emitter of Q115  $\rightarrow$  C164  $\rightarrow$  T102  $\rightarrow$  Telephone Line.

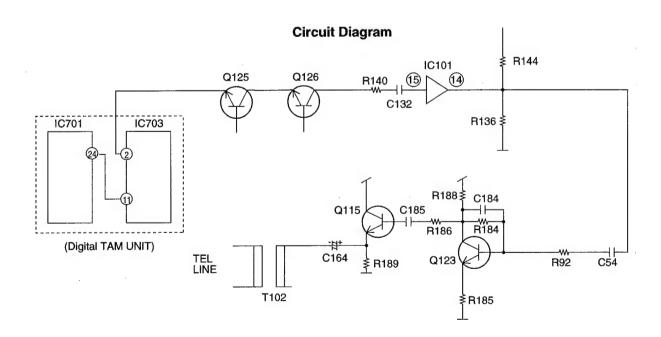


Fig. 33

#### ICM RECORDING CIRCUIT

#### **Circuit Operation:**

Telephone Line  $\rightarrow$  T101  $\rightarrow$  R174  $\rightarrow$  R122  $\rightarrow$  C115  $\rightarrow$  pin @ of IC101  $\rightarrow$  pin @ of IC101  $\rightarrow$  emitter of Q118  $\rightarrow$  collector of Q118  $\rightarrow$  C711  $\rightarrow$  R704  $\rightarrow$  pin @ of IC703  $\rightarrow$  pin @ of IC701 (Digital TAM Unit).

#### **Circuit Diagram**

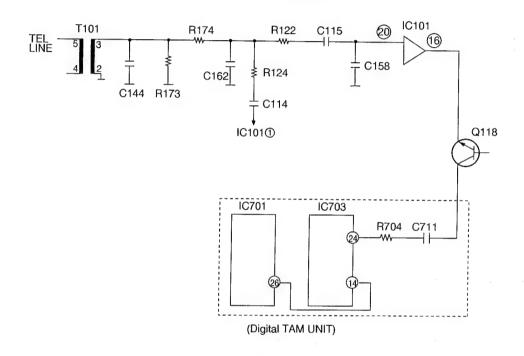
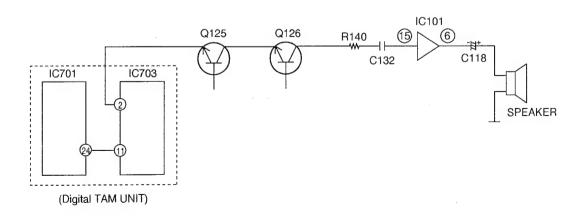


Fig. 34

#### ICM PLAY CIRCUIT

**Circuit Operation:** 



# NORMAL CIRCUIT OPERATION (KX-TCM940H-B)

#### **■ TELEPHONE LINE INTERFACE**

#### **Circuit Operation:**

#### ANSWER

In the idle mode, Q110 is open to cut the DC loop current and decrease the ring load. When ring voltage appears at the Tip (T) and Ring (R) leads (When the telephone rings), the AC ring voltage is transferred as follows:

T→PO1→C141→R187→PC103→IC201 pin (4).

When the CPU detects a ring signal, Q110 turns on, thus providing an off-hook condition (active DC current flow through the circuit) and the following signal flow is for the voice signal.

T→PO1→D119→Q110→T101 pin (5) →T101 pin (4) →D117→D119→R

#### ON HOOK

Q110 is open, Q110 is connected as to cut the DC loop current and to cut the voice signal. The unit is consequently in an on-hook condition.

#### SPECIFICATIONS

In the on-hook state (idle), the current flows between the telephone line and the unit is as follows:

T→C141→R187→PC103→R

The DC component is blocked by C141: thereby providing an on-hook condition.

The AC interface impedance is over 47 kΩ; thus, satisfying the telephone company requirements.

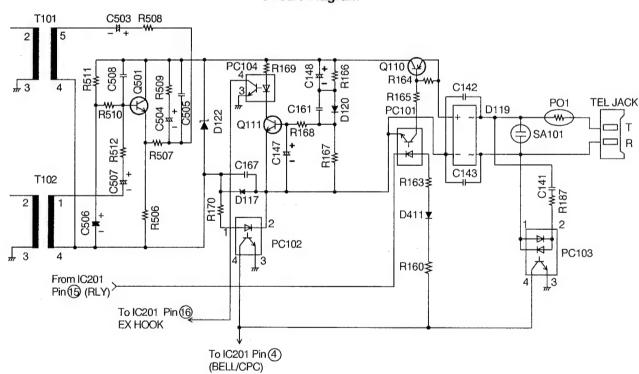


Fig. 36

#### **INTERCOM MODE**

- 1) When the base unit LOCATOR/INTERCOM button is pressed, a call monitor signal (intercom sound) is output from pin 3 of IC201 becomes "LOW". Thus a monitor tone is heard from the speaker.
- 2) At the same time, pin ② of IC201 goes "Low", and the transmission state is reached. Then the modulated data signal is output from pin ③ of IC201. Flashing of the IN USE/CHARGE (LED304) is obtained from pin ① of IC302. This status is called "Intercom stand-by".
- 3) The receiving signal flows:

  RF→ pin ③ of CN1→ VR401→ Q403→ C404→ R439→ pin ② of IC401→ pin ⑤ of IC401→ Q121 (pin ⑩ of IC201 Low→ High)→ C138→ R145→ pin ⑤ of IC101→ pin ⑥ → SP
- 4) The transmission signal flows:

MIC  $\rightarrow$  IC102 (Amp) [pin  $\circlearrowleft$  is outputted]  $\rightarrow$  Q119 (Pin 18 of IC201 Low  $\rightarrow$  High)  $\rightarrow$  C92, R94  $\rightarrow$  pin 29 of IC401  $\rightarrow$  pin 39 of

#### LINE SENDING SIGNAL

The AF signal output from the AF terminal of the RF unit is adjusted to the appropriate level by VR401, amplified by Q403, and input to IC401. The RX DATA signal from the portable handset is muted at this point by Q404 to prevent the RX DATA from leaking onto the line. Also, the DC signal from the RF unit's noise detector comes to Q403. If there is a lot of noise due to a weak signal, the gain of Q403 is reduced, and when there is no noise, standard gain is used. In this way the noise is suppressed. IC401 comprises a 3 kHz LPF and an expander IC. The signal compressed by the portable handset is expanded, recreating it as a normal signal. The output from the expander passes through amplifier Q123 and buffer amplifier Q115 before being input to line transformer T102. In the speakerphone mode, the signal is supplied from pin ④ of IC703 to Q123.

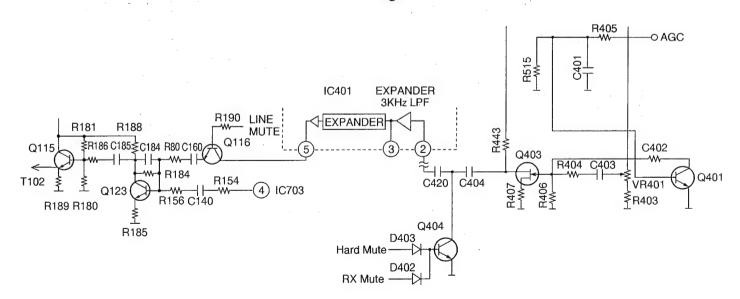


Fig. 37

#### LINE RECIEVING SIGNAL

The audio signal from line transformer T101 is amplified by Q502 and input to IC401. IC401 comprises an amplifier, limiter, mute circuit, compander, and 3 kHz LPF. It performs signal processing. The audio signal output from pin (i) of IC401 is mixed with the DTMF, TX DATA, and TR RLY signals. At this point (in the talk mode), the DTMF tones, pulse dial tones, and data transferred between the portable handset and base unit is input to the modulator circuit.

### **Circuit Diagram CPU IC201** CPU TX MUTE TX DATA (69 TR RLY (15 R503 R31 C94 LINE TRANS C502 Q502 C91 Limiter Compande **LPF** R502 IC401 Compander Q112 **CPU LINE MUTE**

Fig. 38

#### RX DATA CIRCUIT/HARD MUTE CIRCUIT

The AF signal output from the RF unit is filtered and amplified by a filter amplifier with a 500 Hz cutoff connected to pins ① through ④ of IC402. The resulting demodulated data waveform is then input to RX DATA pin ⑤ of the CPU. If there is data from the portable handset during talk operation, the portable handset data is as shown below to prevent the data from leaking onto the line. Hardware muting is applied as the leading edge of the data as soon as the data arrives. After this, muting is applied by the CPU.

#### **Timing Chart**

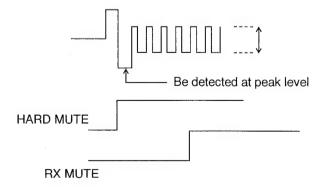


Fig. 39

#### **Circuit Diagram**

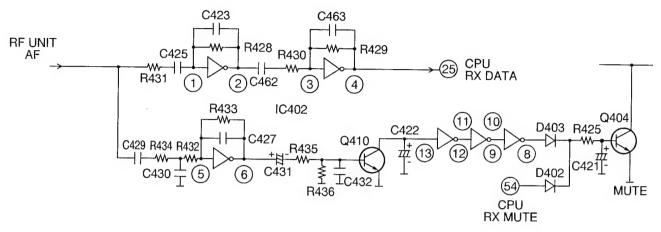


Fig. 40

#### INITIALIZING CIRCUIT

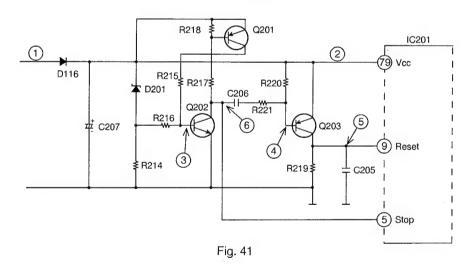
#### Function:

This circuit is used for to initialize the microcomputer when it incorporates an AC adaptor.

#### **Circuit Operation:**

When the AC Adaptor is inserted into the unit, then the voltage is shifted by D116 and power is supplied to the CPU. The set can operate beyond point (A) in the circuit voltage diagram.

#### **Circuit Diagram**



#### **Circuit Voltage**

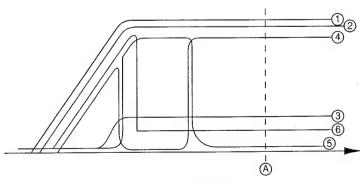


Fig. 42

#### CPC (CALLING PARTY CONTROL) DETECTOR CIRCUIT

#### Function:

The CPC DETECTOR complements the units shut off, in the ANSWER mode, after the caller hangs up. At this time, the CPC DETECTOR takes over.

The CPC DETECTOR senses the temporary disconnection of the telephone line which occurs after the caller hangs up.

#### **Circuit Operation:**

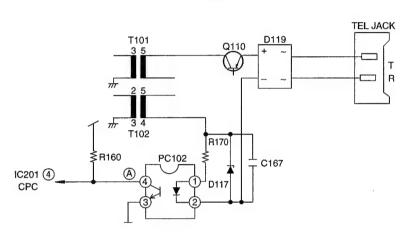
When off-hook, the DC current of telephone line flows as follows:

T→D119→T101→T102→R170→PC102→D119→R

When in the off-hook mode, the collector of PC102 is at Low level.

If an instant break down of the telephone line occurs, the collector of phototransistor goes to a high level from a low level. (The CPC detector is designed for the instant break down of more than 8 msec. or 600 msec.)

#### **Circuit Diagram**



#### **CPC Function**

	Α	В		
ОК	more than 8 ms	more than 600 ms		
NG	less than 5 ms	less than 350 ms		

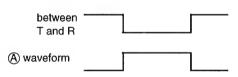


Fig. 43

#### **DTMF SIGNAL**

When the DTMF data from the portable unit is received, the DTMF signal is output from pins  $\mathfrak{P}$ ,  $\mathfrak{P}$  of the CPU and sent to the line through Q123, Q115.

#### **ID CODE SETTING**

When the portable handset is placed on the base unit, the charge detector operates and ID data is output from pin <sup>69</sup> of the CPU. After passing through data amplifier Q104 and the charge terminal, the data is sent to the portable handset.

#### **AUTO DISCONNECT CIRCUIT**

#### **Function:**

This circuit is used to detect the fact that another telephone connected to the same line is OFF-HOOK while the unit is in a receiving status or OGM transmitting status.

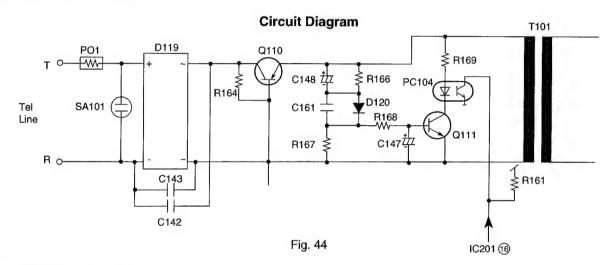
#### **Circuit Operation:**

 $T \rightarrow PO1 \rightarrow D119 \rightarrow Q110 \rightarrow C148 \rightarrow D120 \rightarrow R168 \rightarrow Q111$ . During this interval C147 charges and the base of Q110 becomes High, causing Q110 to go ON.

If a parallel-connected telephone is put into an OFF HOOK status, charge ceases to flow to C148, and the base of Q110 becomes Low, causing Q110 to go OFF.

However, the system is designed so that if the voltage fluctuation is small, the charging and discharging of C147 has no effect on the system.

When a line is connected, Q110 goes ON, causing pin (6) of IC201 to go low. When the line is disconnected, Q110 goes off, causing pin (6) of IC201 to go high.



#### POWER SUPPLY CIRCUIT

#### **Function:**

Power from the AC adaptor passes through a 5-stage regulating block consisting of Q100 ~ Q103, Q113 and provides system voltages of 6.3 V and 10 V.

#### Circuit Operation:

Q101 and Q100 is a regulated power supply. The voltage at point (A) is regulated to 10 V by the zener voltage of D101. Q103, Q102, Q113 is a regulated power supply.

The voltage at point (B) is regulated to 6.3 V by the zener voltage of D118. The 6 V voltage is dropped by D116 to 5.4 V.

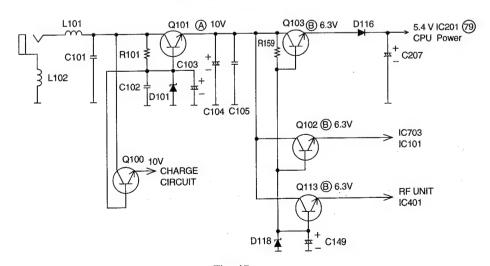


Fig. 45

#### **RF UNIT**

#### PLL CIRCUIT

The PLL IC comprises two PLL blocks, one for transmission and one for reception, a transmission multiplier circuit, and a reception first mixer circuit.

The 900 MHz band frequency from the RX VCO, the 450 MHz band frequency from the TX VCO, and the 10.25 MHz reference oscillator frequency are frequency divided by a frequency divider controlled by the CPU to create the 12.5 kHz comparison frequency. The phase comparator determines the phase difference between the TX and RX frequencies and the reference frequency, and supplies a control voltage via pin ⑦ or pin ⑱ to the appropriate VCOs so that the desired TX and RX frequencies are maintained. The output from the TX VCO is multiplied by 2 internally by the IC, resulting in a 900 MHz band signal that is then output to pin ② . Also, the RX VCO signal is supplied to the first mixer built into the IC.

#### **Circuit Diagram** MIXER OUTPUT Buffer (2. Multiplier MIXER INPUT 1st MIXER **TXVCO** Divider Divider **RXVCO** Buffer Buffer Phase Phase Comparator Comparator Standard 10.25MHz 占 Divider Oscillate from CPU Buffer Fig. 46

#### TX VCO, RX VCO

TX VCO and RX VCO are module as shown below table.

	TX VCO	RX VCO		
Pin Layout	MOD GND OUT  CONTROL GND BIAS VOLTAGE  Shield Case side View	MOD GND OUT  CONTROL GND BIAS VOLTAGE  Shield Case side View		
Oscillator Frequency	Portable Handset 463.05~463.775MHZ Base Unit 451.05~451.775MHZ	Portable Handset 891.4~892.85MHZ Base Unit 936.8~938.25MHZ		
Output Level	-6dB	±2dB		
Control Voltage	0.5~2	5VDC		

#### RECIEVER RF CIRCUIT ( ): Portable Handset

The electric wave received from the antenna ia attenuated by the SAW filter F302 (F402) except the received frequency band Then it is amplifier Q304 (Q404) and Q303 (Q403), and supplied to the IC301 (IC401) pin (3) (MIXER input).

#### **Circuit Diagram**

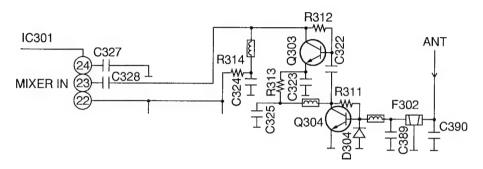


Fig. 47

#### MIXER IF CIRCUIT ( ): Portable Handset

The reception frequency band signal supplied to the pin (a) MIXER input of IC301 (IC401) is converted into a 10.7 MHz first IF signal by the mixer circuit, using the reception local signal. The result is then output to pin (b) MIXO. The resonator circuit consisting of L304, C336 (L404, C436) resonates at 10.7 MHz. The 10.7 MHz IF signal is filtered by ceramic filter F303 (F403) and then supplied to IF amplifier Q305 (Q405).

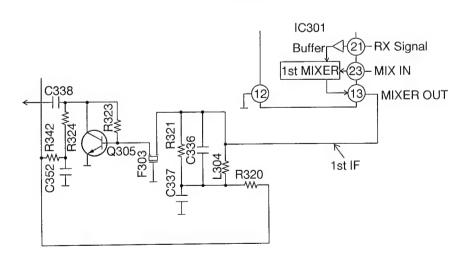


Fig. 48

#### **TX POWER CIRCUIT ( ): Portable Handset**

After being multiplied by 2 inside IC301 (IC401) to make it a 900 MHz band frequency, the transmission signal is amplified by Q301 and Q302 (Q401 and Q402) and frequency elements outside of the transmission frequency are attenuated by dielectric filter F301 (F401). The signal then passes through a transmission-reception matching circuit and supplied to the antenna terminal.

#### Circuit Diagram

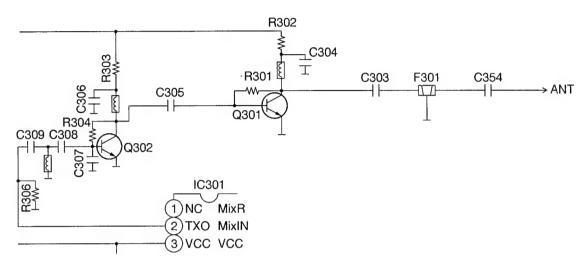
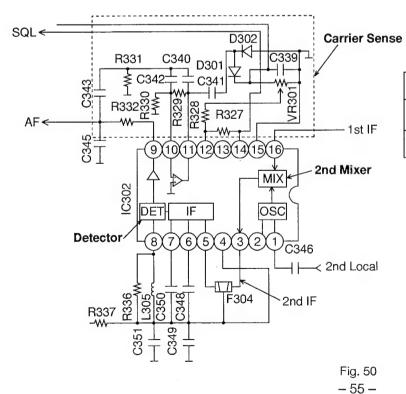


Fig. 49

#### ■ SECOND MIXER, DETECTOR, CARRIER SENSE CIRCUIT ( ): Portable Handset

The 10.7 MHz IF signal from Q305 (Q405) passes through pin (6) of IC302 (IC402) and is input to the second mixer built into the IC. The reference oscillator frequency from IC301 (IC401) is used as the second local signal.

After being converted into a 450 kHz second IF by the second mixer, the signal is wave detected and output to pin (9) as a low-frequency signal. This signal is output as the AF output signal and, at the same time, used for electric field determination. The FM noise is filtered by a 10 kHz BPF comprising pins (10) and (11) and then amplified. Then it is rectified by D301 (D401) and D302 (D402), and input to the switching block consisting of pins (12) through (14).



	14 Pin
Enable to Electric Field	nLu
Disable to Electric Field	"H"

# BLOCK DIAGRAM (KX-TCM940R-B)

(Control Block)

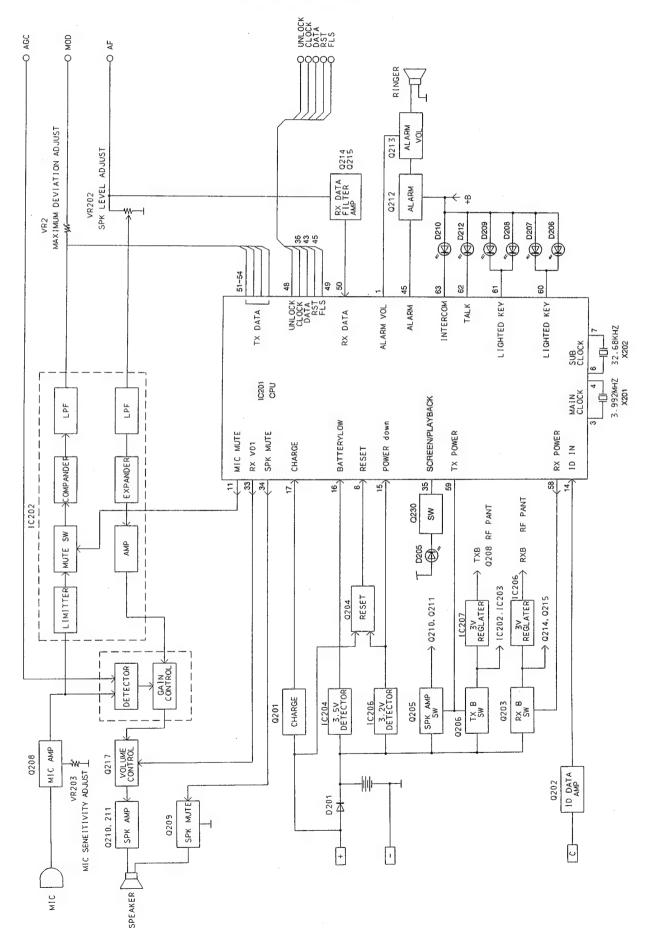


Fig. 51

## (RF Block)

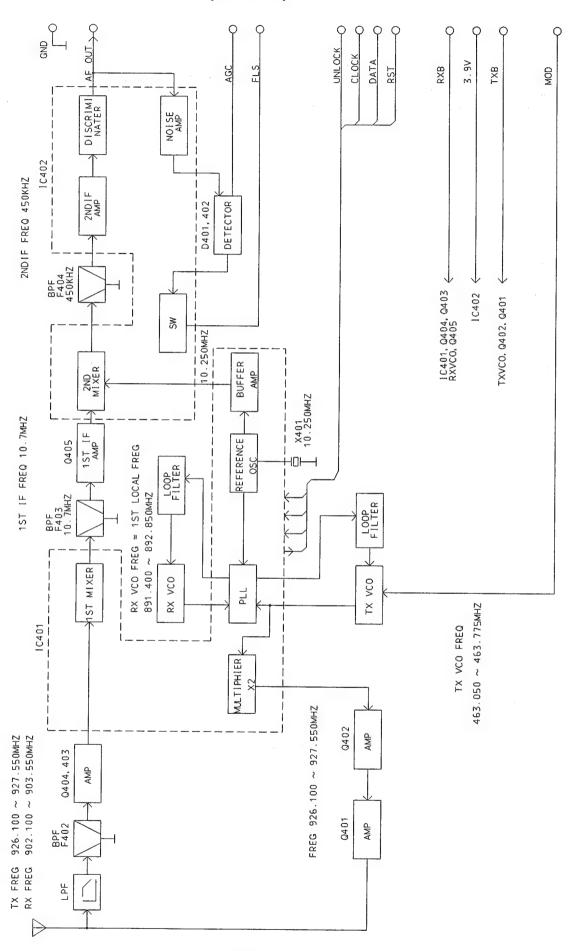


Fig. 52

# NORMAL CIRCUIT OPERATION (KX-TCM940R-B)

#### POWER SUPPLY CIRCUIT

As indicated in Fig.40, voltage is supplied separately to each block. In order to ensure that the RF block in particular has a stable fixed-voltage power supply, the RF block is equipped with a dedicated stabilized power supply. In the standby mode, pin ® drops at set intervals from high to low level, resulting in an intermittent reception signal. In the talk mode, pins ® and ® are low level and power is supplied to all the circuitry.

# Circuit Diagram

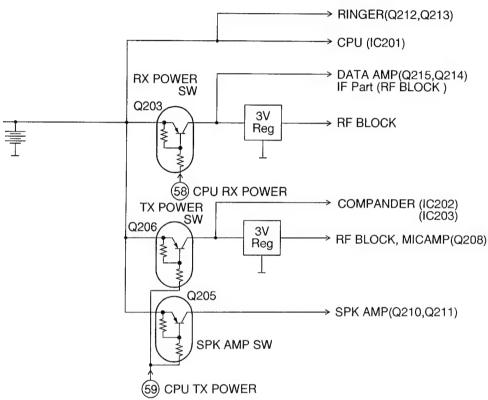


Fig. 53

#### DATA RECEPTION CIRCUIT

The wave detection signal from the RF block has high frequency elements eliminated by a CR filter consisting of R258 and C244. Then it is amplified by Q215 and, once again, high frequency elements are eliminated by R255 and C243. After this, the signal is amplified by Q214 and input to pin 60 of the CPU. (The cutoff frequency is 500 Hz.)

The data output waveform is a block pulse. To inhibit block pulse noise, the gain of the amplifier is limited and modulation is clipped at 3 kHz.

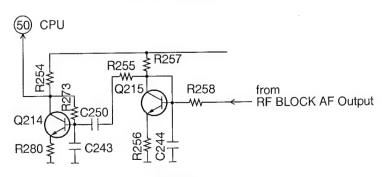


Fig. 54

#### RINGER CIRCUIT

If the ringer volume is set to low and the key is entered occurs, an alarm tone is output from pin 45 of the CPU and input to Q212. This causes Q213 to turn off and results in a softer beep tone.

If the ringer volume is set to high, Q213 turns on and results in a louder beep tone.

#### **Circuit Diagram**

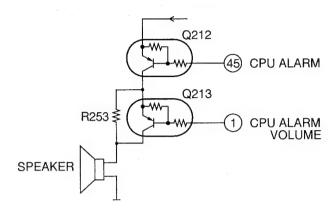


Fig. 55

#### **RECEPTION SIGNAL CIRCUIT**

The receiver circuit comprises expander IC202, side tone control IC IC208, and a speaker amplifier.

After being adjusted to the appropriate level by VR202, the signal passes through a 3 kHz LPF and an expander built into IC202. It is then input to side tone IC IC208. The side tone IC is connected to the microphone amplifier. If a large input is input to the microphone, the gain control built into IC208 lowers the gain to reduce the output of the speaker amplifier. If there is no large input being input to the microphone, the amplifier in IC208 is set to standard gain. Consequently, the sound of the received audio signal becomes fainter when the user is talking in a loud voice and the side tone level is lowered. When the user talks more softly, the received audio signal is audible at the standard level.

Also, in addition to the input from the microphone, the ACG signal from the RF block is input to the side tone IC. When the base unit and portable handset are separated from each other, causing the signal to become weaker, the DC voltage rises and this voltage is input to pin ⑤ of IC208. When the DC voltage input to pin ⑥ rises, the gain control built into IC208 lowers the gain. Consequently, the reception level is lowered when the reception signal is weak and there is more noise. This prevents the noise from becoming too noticeable.

The reception signal passes through receiver volume selector switch Q217, and then drives the receiver speaker.

RX VOL H: LOW LEVEL

L : HIGH LEVEL

SPK MUTE H : SPEAKER ON

L : SPEAKER OFF

#### **Circuit Diagram**

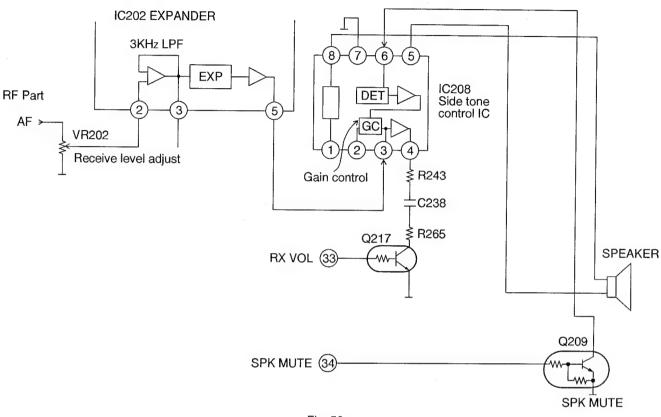


Fig. 56

#### **SENDING SIGNAL CIRCUIT**

The audio signal from the microphone is amplified by Q208 and then passes through a limiter, mute circuit, compander, and 3 kHz LPF built into IC202. It is then mixed with the TX DATA signal from the CPU, the maximum modulation is adjusted by VR201, and input to the modulator in the RF block.

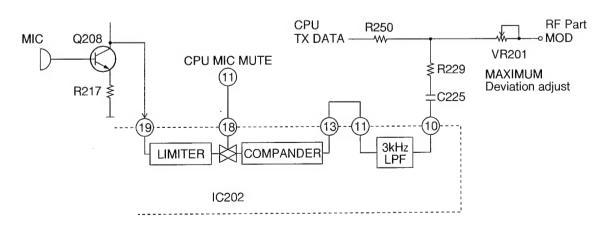


Fig. 57

#### RESET/POWER DOWN/BATTERY LOW/ID

When the battery is installed in the portable handset, the reset circuit consisting of R289, C255, and Q204 functions, inputting a reset signal to the CPU. This ensures that the unit will operate normally without the user's needing to switch the power off and on. When the voltage from the batteries drops to 3.5 V, 3.5 V voltage detector IC204 operates and inputs a battery low signal to the CPU. This causes the battery low LED to flash on and off. If voltage continues to drop and reaches 3.2 V, 3.2 V voltage detector IC206 operates and outputs a power down signal to the CPU. This causes power to be cut off automatically and prevents the battery from over discharging.

Q201 is a charge detector that informs the CPU whether or not the portable handset is currently being charged. During charging, ID data is sent from the base unit. Q202 receives this ID data and sends it to the CPU.

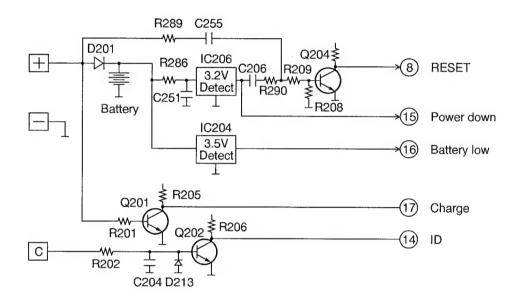
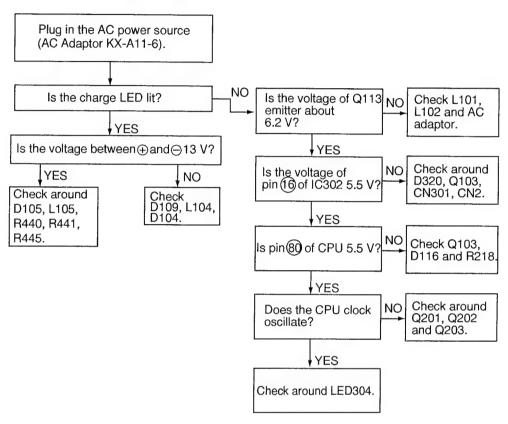


Fig. 58

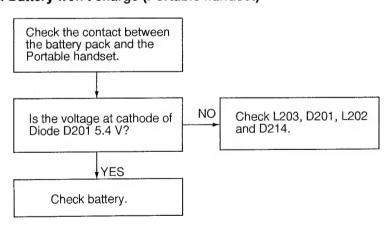
# TROUBLESHOOTING GUIDE

#### (CORDLESS SECTION)

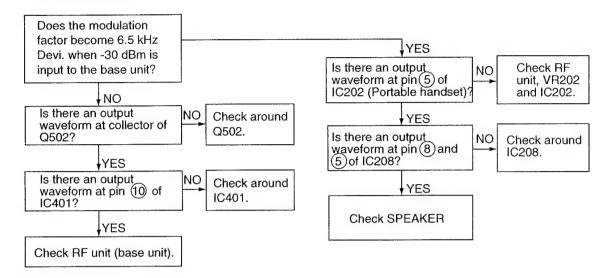
#### 1. Battery won't charge (Base unit)



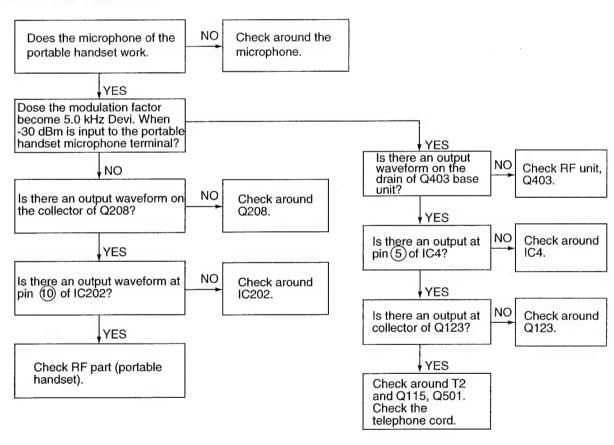
#### 2. Battery won't charge (Portable handset)



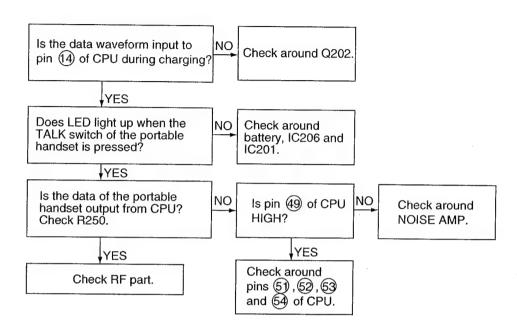
#### 3. No voice reception



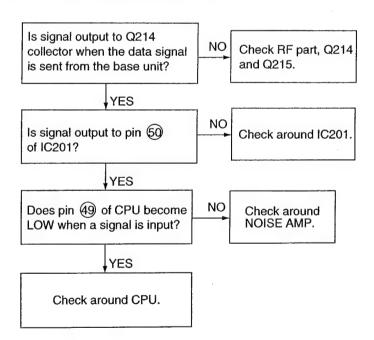
#### 4. No voice transmission



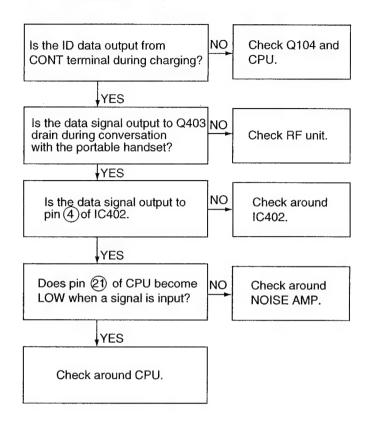
#### 5. No link (Portable handset TX)



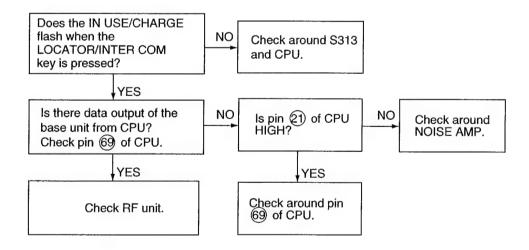
#### 6. No link (Portable handset RX)



#### 7. No link (Base unit RX)

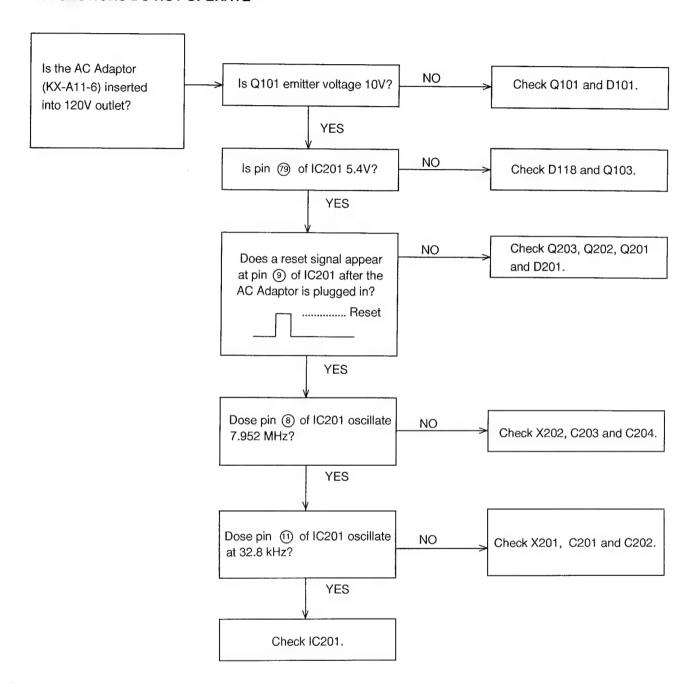


#### 8. No link (Base unit TX)

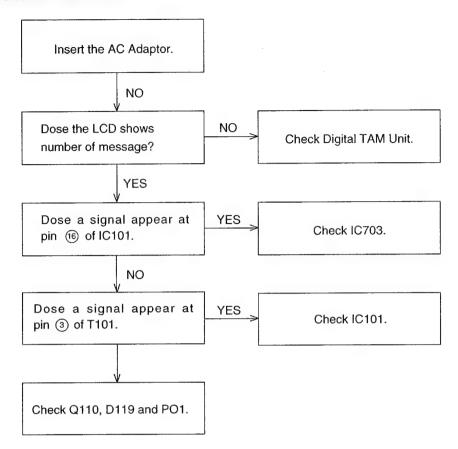


#### (TAM SECTION)

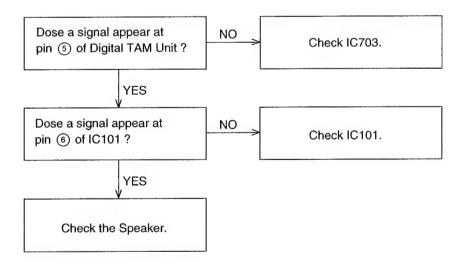
#### 1. FUNCTIONS DO NOT OPERATE



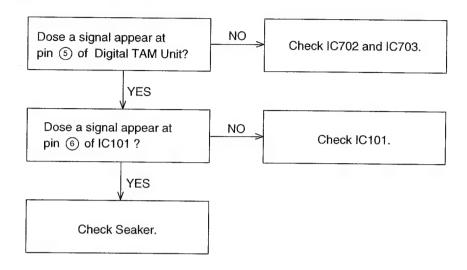
#### 2. DOES NOT RECORD



#### 3. DOES NOT PLAYBACK



## 4. CANNOT FIND THE SYNTHESIZED VOICE



#### 5. END OF MESSAGE IS CLIPPED WHEN CALLER HANGS UP

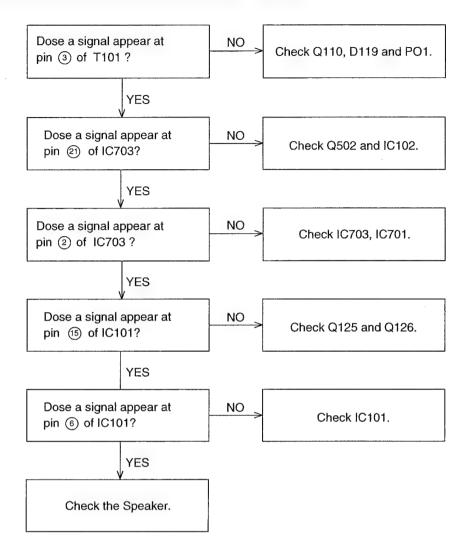
When caller hangs up, the KX-TCM940-B can detect the following 4 signal type.

- A. CPC pulse.
- B. Dial tone or other continuous tones.
- C. Silence.
- D. Cycle signals.

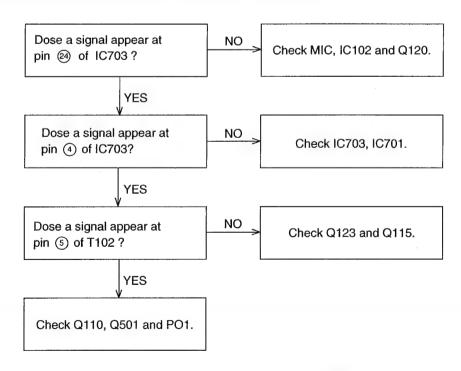
A. Check CPC DETECTOR CIRCUIT (D117, R170, R160, R161 and PC102) B.,C.,D

Check VOX DETECTOR CIRCUIT (IC101, R137, R138, C131 and C130)

#### 6. WHEN SP-PHONE WORKS, DOES NOT RECEIVE



#### 7. WHEN SP-PHONE WORKS, DOES NOT TRANSMIT



# CABINET AND ELECTRICAL PARTS LOCATION (KX-TCM940H-B)

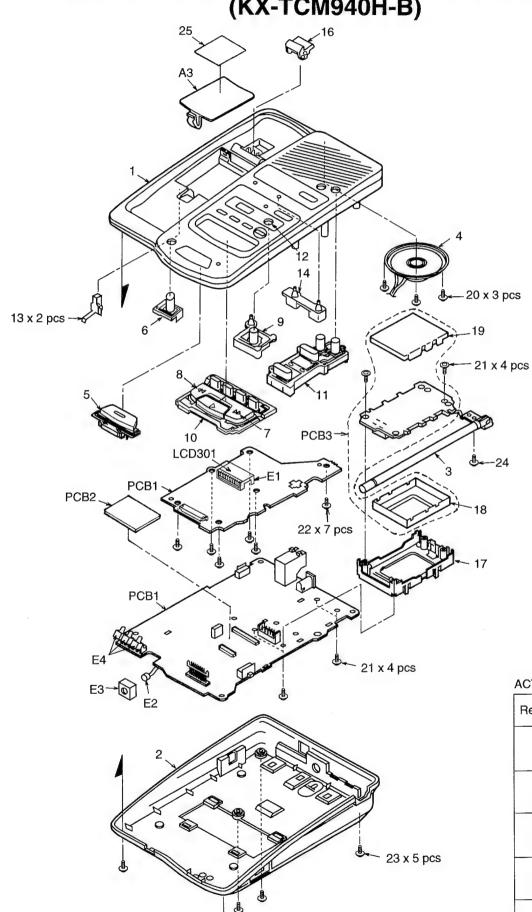
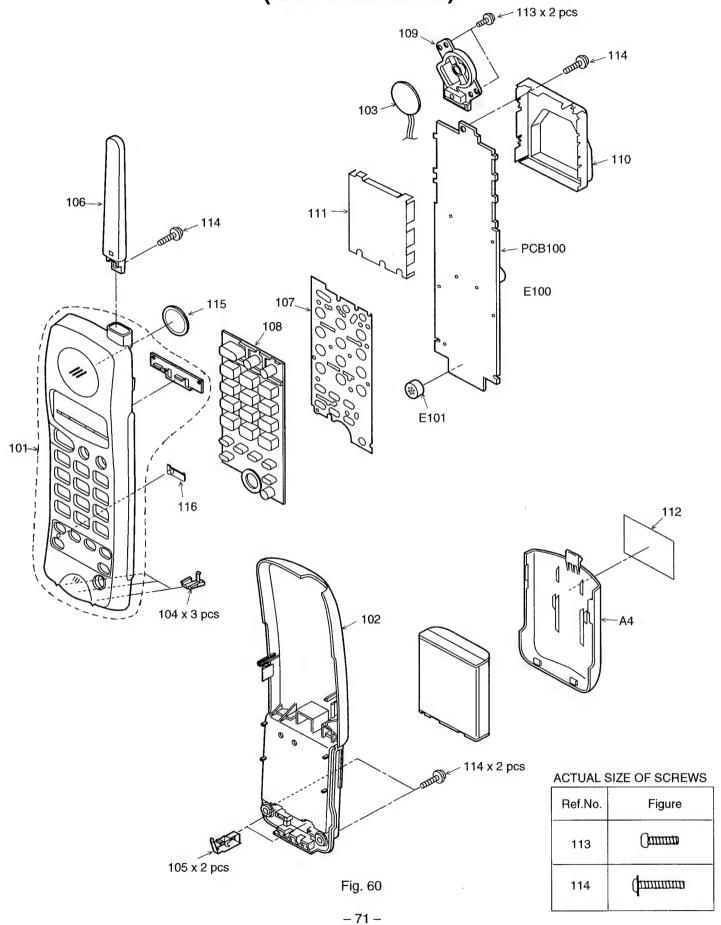


Fig. 59 - 70 -

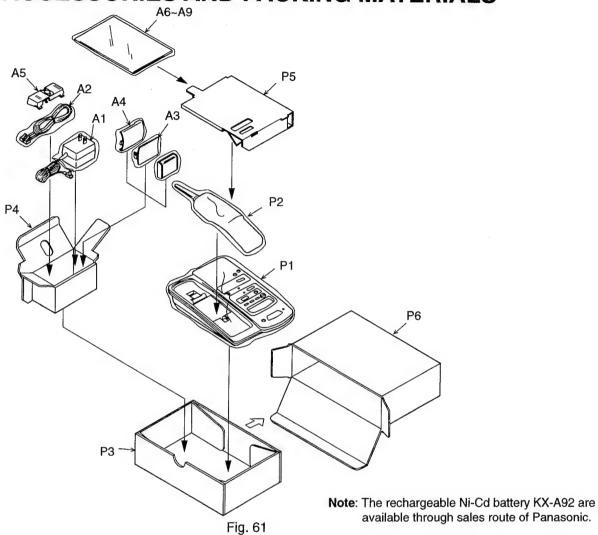
#### ACTUAL SIZE OF SCREWS

ACTUAL SIZE OF SCHEWS					
Ref.No.	Figure				
20	( <del> </del>				
21	( <del>Jaman</del>				
22	(финин				
23	<u>(</u> финини				
24	()\tauma				

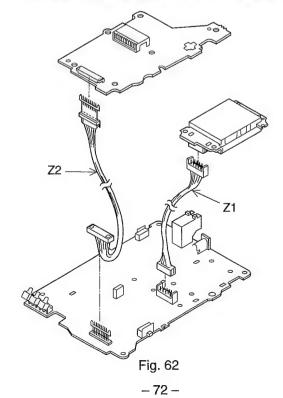
CABINET AND ELECTRICAL PARTS LOCATION (KX-TCM940R-B)



# **ACCESSORIES AND PACKING MATERIALS**



# **FIXTURES AND TOOLS**



This replacement parts list is U.S.A. version only. Refer to the simplified manual (cover) for other areas.

Model KX-TCM940H-B	RE	PLACEN	IENT	PARTS	LIST						
Note:  1. RTL (Retention Time Limited) The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention.  After the end of this period, the assembly will no longer be available.  2. Important safety notice.  Components identified by a Δ mark special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.  3. The S mark indicates service standard parts and may differ from production parts.  4. RESISTORS & CAPACITORS  Unless otherwise specified.  All resistors are in ohms (Ω) K=1000Ω, M=1000KΩ  All capacitors are in MICRO FARADS (μF) P= μμF  *Type &Wattage of Resistor  Type  ERC:Solid			Mod	al KY-	TCM040L	I_D					
1. RTL (Retention Time Limited) The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention.  After the end of this period, the assembly will no longer be available.  2. Important safety notice.  Components identified by a Δ mark special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.  3. The S mark indicates service standard parts and may differ from production parts.  4. RESISTORS & CAPACITORS  Unless otherwise specified.  All resistors are in ohms ( Ω ) K=1000Ω, M=1000ΚΩ  All capacitors are in MICRO FARADS ( μF ) P= μμF  *Type &Wattage of Resistor  Type  ERC:Solid ERX:Metal Film PQ4R:Carbon  ERC:Carbon ERC:Metal Oxide ERS:Fusible Resistor  Type  ECCP:Semi-Conductor ECCP,ECKD,ECBT,PQCBC: Ceramic  ECQB:Styrol ECCR,ECGV,ECQG: Polyester  ECCP:Semi-Conductor ECCR,ECGV,ECQG: Polyester  ECCP, Polypropylene  Voltage  ECQ Type ECQG ECQV Type  TH: 50V 05: 50V 0F:3.15V 0J :6.3V 1V :35V  22:100V 1:100V 1A:10V 1A :10V 50,1H:50V  22:250V 2:200V 1V:35V 1C :16V 1J :63V	Note:										
The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention.  After the end of this period, the assembly will no longer be available.  2. Important safety notice.  Components identified by a Δ mark special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.  3. The S mark indicates service standard parts and may differ from production parts.  4. RESISTORS & CAPACITORS  Unless otherwise specified.  All resistors are in ohms ( Ω ) K=1000Ω, M=1000KΩ  All capacitors are in MICRO FARADS ( μF ) P= μμF  *Type &Wattage of Resistor  Type  ERC:Solid ERX:Metal Film PQ4R:Carbon  ERG:Metal Oxide ERS:Fusible Resistor  PQRD:Carbon ERG:Metal Oxide ERS:Fusible Resistor  Wattage  [10,16:1/8W 14,25:1/4W 12:1/2W 1:1W 2:2W 3:3W)  *Type & Voltage of Capacitor  Type  ECCD:Semi-Conductor ECCD,ECKD,ECBT,PQCBC : Ceramic  ECQS:Styrol ECQE,ECQV,ECQG : Polyester  PQCUV:Chip ECCA,ECSZ : Electrolytic  ECQMS:Mica ECQV Type  TH: 50V 05: 50V 0F:3.15V 0J :6.3V 1V :35V  24:100V 1:100V 1A:10V 1A :10V 50,1H:50V  25:250V 2:200V 1V:35V 1C :16V 1J :63V		Time Limited)									
2. Important safety notice.  Components identified by a Δ mark special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.  3. The S mark indicates service standard parts and may differ from production parts.  4. RESISTORS & CAPACITORS Unless otherwise specified.  All resistors are in ohms ( Ω ) K=1000Ω, M=1000ΚΩ All capacitors are in MICRO FARADS ( μF ) P= μμF  *Type &Wattage of Resistor Type  ERC:Solid ERX:Metal Film PQ4R:Carbon ERG:Metal Oxide ERS:Fusible Resistor PQRD:Carbon ER0:Metal Film ERF:Cement Resistor  Wattage  10,16:1/8W 14,25:1/4W 12:1/2W 1:1W 2:2W 3:3W  *Type & Voltage of Capacitor Type  ECFD:Semi-Conductor ECQE,ECQV,ECQG: Polyester ECQS:Styrol ECQA,ECSZ: Electrolytic ECQMS:Mica ECQP: Polypropylene  Voltage  ECQ Type ECQC ECSZ Type Others  1H: 50V 05: 50V 0F:3.15V 0J :6.3V 1V :35V 2A:100V 1:100V 1A:10V 1A :10V 50,1H:50V 2E:250V 2:200V 1V:35V 1C :16V 1J :63V	The marking (I After the disco to be available is dependent of governing part	The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention.									
Components identified by a Δ mark special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.  3. The S mark indicates service standard parts and may differ from production parts.  4. RESISTORS & CAPACITORS Unless otherwise specified. All resistors are in ohms ( Ω ) K=1000Ω, M=1000ΚΩ All capacitors are in MICRO FARADS ( μF ) P= μμF  *Type &Wattage of Resistor Type  ERC:Solid ERX:Metal Film PQ4R:Carbon ERG:Metal Oxide ERS:Fusible Resistor PQRD:Carbon ER0:Metal Film ERF:Cement Resistor  Wattage  10,16:1/8W 14,25:1/4W 12:1/2W 1:1W 2:2W 3:3W  *Type & Voltage of Capacitor Type  ECFD:Semi-Conductor ECQE,ECQV,ECQG: Polyester ECQS:Styrol ECQA,ECSZ: Electrolytic ECQMS:Mica ECQP: Polypropylene  Voltage  ECQ Type ECQG ECSZ Type Others  1H: 50V 05: 50V 0F:3.15V 0J :6.3V 1V :35V 2A:100V 1:100V 1A:10V 1A :10V 50,1H:50V 2E:250V 2:200V 1V:35V 1C :16V 1J :63V	i e										
3. The S mark indicates service standard parts and may differ from production parts.  4. RESISTORS & CAPACITORS Unless otherwise specified. All resistors are in ohms ( Ω ) K=1000Ω, M=1000ΚΩ All capacitors are in MICRO FARADS ( μF ) P= μμF  *Type &Wattage of Resistor Type  ERC:Solid	Components in safety. When	dentified by a replacing any o	•		•						
parts.  4. RESISTORS & CAPACITORS Unless otherwise specified. All resistors are in ohms ( Ω ) K=1000Ω, M=1000ΚΩ All capacitors are in MICRO FARADS ( μF ) P= μμF  *Type &Wattage of Resistor Type  ERC:Solid			standard par	ts and may	differ from pro	duction					
Unless otherwise specified. All resistors are in ohms ( $\Omega$ ) K=1000 $\Omega$ , M=1000K $\Omega$ All capacitors are in MICRO FARADS ( $\mu F$ ) P= $\mu \mu F$ *Type &Wattage of Resistor Type ERC:Solid ERX:Metal Film PQ4R:Carbon ERG:Metal Oxide ERS:Fusible Resistor PQRD:Carbon ER0:Metal Film ERF:Cement Resistor Wattage 10,16:1/8W 14,25:1/4W 12:1/2W 1:1W 2:2W 3:3W *Type & Voltage of Capacitor Type ECFD:Semi-Conductor ECQS:Styrol ECQE,ECQV,ECQG: Polyester PQCUV:Chip ECEA,ECSZ: Electrolytic ECQMS:Mica ECQP: Polypropylene Voltage ECQ Type ECQV Type ECSZ Type Others ECQV Type 11H: 50V 05: 50V 0F:3.15V 0J :6.3V 1V :35V 2A:100V 1:100V 1A:10V 1A :10V 50,1H:50V 2E:250V 2:200V 1V:35V 1C :16V 1J :63V	1		otariaara pai	to and may	aoro p.o.						
All resistors are in ohms ( $\Omega$ ) K=1000 $\Omega$ , M=1000K $\Omega$ All capacitors are in MICRO FARADS ( $\mu F$ ) P= $\mu \mu F$ *Type &Wattage of Resistor Type  ERC:Solid		CAPACITORS									
All capacitors are in MICRO FARADS ( μF ) P= μμF  *Type &Wattage of Resistor Type  ERC:Solid	Unless otherwi	se specified.									
*Type &Wattage of Resistor Type  ERC:Solid	All resistors are	e in ohms ( $\Omega$ ) l	K=1000Ω, M	=1000KΩ							
Type    ERC:Solid	All capacitors a	re in MICRO FA	ARADS (μF	) P= μμF							
ERC:Solid	*Type &Wattag	ge of Resistor									
ERD:Carbon											
PQRD:Carbon   ER0:Metal Film   ERF:Cement Resistor	1 1										
Wattage         10,16:1/8W         14,25:1/4W         12:1/2W         1:1W         2:2W         3:3W           *Type & Voltage of Capacitor Type           ECFD:Semi-Conductor         ECCD,ECKD,ECBT,PQCBC : Ceramic           ECQS:Styrol         ECQE,ECQV,ECQG : Polyester           PQCUV:Chip         ECEA,ECSZ : Electrolytic           ECQMS:Mica         ECQP : Polypropylene           Voltage         ECQ Type         Others           ECQV Type         Others           1H: 50V         05: 50V         0F:3.15V         0J :6.3V         1V :35V           2A:100V         1:100V         1A:10V         1A :10V         50,1H:50V           2E:250V         2:200V         1V:35V         1C :16V         1J :63V											
10,16:1/8W		ER0:Metal F	ilm ER	-:Cement Re	esistor						
*Type & Voltage of Capacitor Type  ECFD:Semi-Conductor		•				1					
Type  ECFD:Semi-Conductor			12:1/2	<u>// 1:</u>	1W 2:2W	3:3W					
ECCD,ECKD,ECBT,PQCBC : Ceramic   ECQS:Styrol   ECQE,ECQV,ECQG : Polyester   ECQMS:Mica   ECQP : Polypropylene   Voltage   ECQV Type   This sov	,,	e of Capacitor									
ECQS:Styrol			15005 50V	5 F057 50	000 0						
PQCUV:Chip   ECEA,ECSZ : Electrolytic   ECQMS:Mica   ECQP : Polypropylene		nauctor				;					
ECQMS:Mica   ECQP : Polypropylene     Voltage     ECQV Type   ECQV Type   ECQV Type     Others   ECQV Type     IH: 50V   05: 50V   0F:3.15V   0J : 6.3V   1V : 35V   2A:100V   1:100V   1A:10V   1A : 10V   50,1H:50V   2E:250V   2:200V   1V:35V   1C : 16V   1J : 63V	, ,										
Voltage           ECQ Type         ECQG ECQV Type         Others           1H: 50V         05: 50V         0F:3.15V         0J :6.3V         1V :35V           2A:100V         1:100V         1A:10V         1A :10V         50,1H:50V           2E:250V         2:200V         1V:35V         1C :16V         1J :63V				,	/tic						
ECQ Type         ECQG ECQV Type         ECSZ Type         Others           1H: 50V         05: 50V         0F:3.15V         0J :6.3V         1V :35V           2A:100V         1:100V         1A:10V         1A :10V         50,1H:50V           2E:250V         2:200V         1V:35V         1C :16V         1J :63V			ECQP : Po	iypropylene							
ECQV Type		F000	ICOCT Turns		Othoro						
1H: 50V     05: 50V     0F:3.15V     0J :6.3V     1V :35V       2A:100V     1:100V     1A:10V     1A :10V     50,1H:50V       2E:250V     2:200V     1V:35V     1C :16V     1J :63V	ECQ Type										
2A:100V 1:100V 1A:10V 1A :10V 50,1H:50V 2E:250V 2:200V 1V:35V 1C :16V 1J :63V	1H: 50V		0E:3 15V	01 -6 31/	1.17	·35V					
2E:250V 2:200V 1V:35V 1C :16V 1J :63V											
					1 '						
2.11000   115,E0.E01   EA 11004		L.200 V									
	2.7.0001		00.0.01	. =,=0.204	1 -7						

٦	Ref. No.	Part No.	Part Name & Description	Pcs/Set
			MAIN P.C.BOARD PARTS	
	2024			
	PCB1	PQWPTCM940BH	P.C.BOARD ASS'Y (RTL)	1
			(ICS)	
	IC101	PQVISC111815	IC	1
ı	IC102	PQVINJM4558M	IC	1
١	IC201	PQVI4639RA50	IC	1
١	IC202	PQVI93LC46XI	IC	1
١	IC301	PQVIMC4094BF	ic	1
	IC302 IC401	PQVIMC4094BF AN6165SB	IC IC	1
1	IC402	PQVITC4069UBF	ic	i
ı				
ı	0.4	0000010	(TRANSISTORS)	
	Q4 Q100	2SD601R 2SD1994A	TRANSISTOR(SI) TRANSISTOR(SI)	1
-	Q100 Q101	2SD1994A 2SD2136	TRANSISTOR(SI)	1
	Q102	2SD1994A	TRANSISTOR(SI)	1
	Q103	2SD1994A	TRANSISTOR(SI)	1
	Q104	2SD1991A	TRANSISTOR(SI)	1
-	Q110	2SA1625	TRANSISTOR(SI)	1
	Q111 Q112	2SD601R 2SD601R	TRANSISTOR(SI)  A TRANSISTOR(SI)	1
	Q113	2SD1994A	TRANSISTOR(SI)	1
-	Q115	2SD601R	TRANSISTOR(SI)	1
-	Q116	2SB709A	TRANSISTOR(SI)	1
-1	Q118	2SD601R	TRANSISTOR(SI)	1
-1	Q119	2SD601R	TRANSISTOR(SI)	1
١	Q120 Q121	2SD601R 2SD601R	TRANSISTOR(SI)	1
-	Q122	2SD601R	TRANSISTOR(SI) TRANSISTOR(SI)	1
	Q123	2SD1819A	TRANSISTOR(SI)	1
1	Q125	2SB709A	TRANSISTOR(SI)	1
-	Q126	2SD601R	TRANSISTOR(SI)	1
-1	Q201	2SB709A	TRANSISTOR(SI)	1
- 1	Q202 Q203	2SD601R 2SB709A	TRANSISTOR(SI) TRANSISTOR(SI)	1
	Q301	2SD601R	TRANSISTOR(SI)	1
ŧ	Q302	2SD601R	TRANSISTOR(SI)	1
	Q303	2SD601R	TRANSISTOR(SI)	1
1	Q304	2SD601R	TRANSISTOR(SI)	1
4	Q305	2SD601R	TRANSISTOR(SI)	1
	Q401 Q403	2SD601R 2SK543	TRANSISTOR(SI) TRANSISTOR(SI)	1
	Q404	2SD601R	TRANSISTOR(SI)	1
	Q408	2SD1991A	TRANSISTOR(SI)	1
١	Q410	2SD601R	TRANSISTOR(SI)	1
-	Q501	2SC2120	TRANSISTOR(SI) ⚠	1
	Q502	2SD1819A	TRANSISTOR(SI)	1
	Q503	2SD601R	TRANSISTOR(SI)	1
			(DIODES)	
	D101	MA4100	DIODE(SI)	1
	D103	MA4150	DIODE(SI)	1
	D104	MA4150	DIODE(SI)	1
	D105	MA4150	DIODE(SI)	1
	D106 D107	MA8150 MA8150	DIODE(SI) DIODE(SI)	1
ł	D107	PQVDS5688G	DIODE(SI)	1
	D110	1SS119	DIODE(SI)	1
	D116	1SS119	DIODE(SI)	1
	D117	PQVDMTZ3R6	DIODE(SI) ⚠	1
- [	D118	MA4068	DIODE(SI)	1

Ref. No.	Part No.	Part Name & Description	Pcs/Se
		CABINET & ELECTRICAL PARTS	
1	PQKM10256Z1	UPPER CABINET	1
2	PQYF10101V1	LOWER CABINET	1
3	PQSA10047Z	ANTENNA	1
4	PQAS57P02Y	SPEAKER	1
5	PQBC10223Z1	BUTTON	1
6	PQBC10224Z1	BUTTON	1
7	PQBC10225Z1	BUTTON	1
8	PQBC10226Z1	BUTTON	1
9	PQBC10227Z1	BUTTON	1
10	PQBX10268Z1	BUTTON	1
11	PQBX10269Z1	BUTTON	1
12	PQGP10128Z1	PANEL	1
13	PQJT10086Z	CHARGE TERMINAL	2
14	PQHR10509Z	LED SPACER	1
15	PQHR10510Z	LED SPACER	1
16	PQKE10055Z1	HANGER	1
17	PQHR10484Z	RF UNIT HOLDER	1
18	PQMC10214Z	SHIELD COVER	1
19	PQMC10215Z	SHIELD COVER	1
20	PJHE5065Z	SCREW	3
21	XTW26+7P	SCREW	8
22	XTW3+S10P	SCREW	7
23	XTW3+S14P	SCREW	5
24	XYC3+CG10FX	SCREW	1
25	PQQT11232Z	LABEL	1

D119

D120 D122

D130

188119 MA4180

1S2076

PQVDS1ZB40F1

DIODE(SI)
DIODE(SI)
DIODE(SI)
DIODE(SI)

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Ref. No.	Part No.	Part Name & Description	Pcs/Set
D201	MA4047	DIODE(SI)	1		1	(PHOTO COUPLERS)	
D301	188119	DIODE(SI)	1	PC101	PQVITLP627	PHOTO ELECTRIC TRANSDUCER	A 1
D302	188119	DIODE(SI)	1 1	PC102	PQVIPC817CD	PHOTO ELECTRIC TRANSDUCER	<b>A</b> 1
D303	1SS119	DIODE(SI)		PC103	PQVIPC814K	PHOTO ELECTRIC TRANSDUCER	<u>A</u> 1
D320	188119	DIODE(SI)		PC104	PQVIPC817CD	PHOTO ELECTRIC TRANSDUCER	<b>A</b> 1
D401	PQVDS5688G	DIODE(SI)		1 0 104	T GVII COTTOD	THOTO LELOTHIC THANSDOCEN	445
D402	1S2076	DIODE(SI)	;				1
D402	MA110	DIODE(SI)	'			(OTUEDO)	1
D403 D408	MA110	, ,		SA101	DOV/DDCC0041	(OTHERS)	١.,
	1	DIODE(SI)	1 ' 1		PQVDDSS301L	VARISTOR A	
D411	1SS119	DIODE(SI)	1	SA102	PQVDDSA242MU	VARISTOR A	
DH	1SS119	DIODE(SI)	1	PO1	PQRPAR390N	POSISTOR A	1
LED301	LNJ801LPDJA	LED	1	LCD301	PQADRCD1363R	LIQUID CRYSTAL DISPLAY	1
LED302	LN88RCPHTAMP	LED	1	E1	PQHR10439Z	LCD HOLDER	1
LED303	LNJ801LPDJA	LED	1	E4	PQJM122Z	MICROPHONE	1
LED304	LNJ301MPUJA	LED	1 1	E3	PQMG10014Z	MIC COVER	1
LED305	LNJ801LPDJA	LED	1 1	E5	PQJT10119Z	CHARGE TERMINAL	3
		(COILS AND TRANSFORMERS)				(RESISTORS)	
L101	PQLQXF1R5K	COIL S	1 1	R31	ERJ3GEYJ473	47K	1
L102	PQLQXF1R5K	COIL S	1	R57	ERJ3GEYJ565	5.6M	1
L103	PQLQZM2R2K	COIL	1	R58	ERJ3GEYJ223	22K	1
L104	PQLQZM2R2K	COIL	1	R61	ERJ3GEYJ223	22K	1
L105	PQLQZM2R2K	COIL	1 1	R62	ERJ3GEYJ333	33K	1
L106	PQLQZM330K	COIL	lil	R80	ERJ3GEYJ564	560K	1
L402	PQLQZM2R2K	COIL		R81	ERJ3GEYJ333	33K	1
T101	PQLT8F5A	TRANSFORMER A	1 ' 1	R82	ERJ3GEYJ333	33K	1
	PQLT8F3A			R90	ERJ3GEYJ154	150K	
T102	PULTOFSA	TRANSFORMER A	'				1 1
				R91	ERJ3GEYJ105	1M	
				R92	ERJ3GEYJ155	1.5M	1
		(SWITCHES)		R93	ERJ3GEYJ333	33K	1
S1	PQSS3A17W	SWITCH	1	R94	ERJ3GEYJ154	150K	1
S2	PQSS2A27W	SWITCH	1	R101	ERDS2TJ221	220	1
S3	EVQQJJ05Q	SWITCH	1 1	R103	ERDS2TJ332	3.3K	1
S4	EVQQJJ05Q	SWITCH	1 1	R105	PQ4R10XJ473	47K	1
S302	EVQQJJ05Q	SWITCH	1 1	R120	ERJ3GEYF152	1.5K	1
S305	EVQQJJ05Q	SWITCH	1	R121	ERJ3GEYJ222	2.2K	1
S306	EVQQJJ05Q	SWITCH	1 1	R122	ERJ3GEYJ823	82K	1
S307	EVQQJJ05Q	SWITCH	1 1	R124	ERJ3GEYJ103	10K	1
	1	SWITCH		R125	ERJ3GEYJ823	82K	1
S308	EVQQJJ05Q	SWITCH	1 1	R126	ERJ3GEYJ334	330K	1
S309	EVQQJJ05Q			R127	ERJ3GEYJ473	47K	1
S310	EVQQJJ05Q	SWITCH	I ' I		ERJ3GEYF123	12K	1 1
S311	EVQQJJ05Q	SWITCH	1 1	R128			1
S313	EVQQJJ05Q	SWITCH	1 1	R129	ERJ3GEYJ222	2.2K	;
S314	EVQQJJ05Q	SWITCH	1	R130	ERJ3GEYJ683	68K	
S315	EVQQJJ05Q	SWITCH	1	R131	ERJ3GEYJ102	1K	1
S316	EVQQJJ05Q	SWITCH	1 1	R132	ERJ3GEYJ273	27K	]
				R134	ERJ3GEYJ473	47K	1
				R135	ERJ3GEYJ223	22K	1
		(VARIABLE RESISTORS)		R136	ERJ3GEYJ223	22K	1
VR401	EVNDXAA03B24	VARIABLE RESISTOR	1 1	R137	ERJ3GEYJ682	6.8K	1
VR403	EVNDXAA03B54	VARIABLE RESISTOR	1 1	R138	ERJ3GEYJ822	8.2K	1
V11400	LYNDAAAOODOT			R140	ERJ3GEYJ153	15K	1
	l	1		R141	ERJ3GEYJ103	10K	1
	1	(CRYSTAL OSCILLATORS)	]	R142	ERJ3GEYJ683	68K	1
	DOVO: 00701107	,	1 1	R142	ERDS2TJ100	10	1
X201	PQVCL3276N6Z	CRYSTAL OSCILLATOR		1	ERJ3GEYJ154	150K	1
X202	PQVCJ7952N5Z	CRYSTAL OSCILLATOR	1	R145		100K	1
			j	R146	ERJ3GEYJ104		1
			] . [	R147	ERJ3GEYJ124	120K	1
	Ī	(JACKS)		R148	ERJ3GEYJ104	100K	
JJ1	PQJJ1B4Y	JACK, DC IN	1	R149	ERJ3GEYJ472	4.7K	1 1
JJ2	PQJJ1TA9Z	JACK, TEL	1	R150	ERJ3GEYJ104	100K	1
302				R152	ERJ3GEYJ103	10K	1
	1			R153	ERJ3GEYJ104	100K	1
	1	(CONNECTORS)	1	R154	ERJ3GEYJ123	12K	1
		(CONNECTORS)	,	R155	ERJ3GEYJ104	100K	1 1
CN1	PQJP12B44Z	CONNECTOR	1 1		ERJ3GEYJ564	560K	1
CN2	PQJP14B48Z	CONNECTOR	1	R156		82K	l i
CN3	PQJP14A92Z	CONNECTOR	1 1	R157	ERJ3GEYJ823		1
LCNO		LOONNECTOR	1	R158	ERJ3GEYJ104	100K	
	PQJP11A92Z	CONNECTOR					4
CN3 CN4 CN301	PQJP11A92Z PQJS14A36Z	CONNECTOR	1	R159 R160	ERDS2TJ221 PQ4R10XJ221	220 220	1

Ref. No.	Part No.	Value	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
R161	PQ4R18XJ333	33K	1	R411	ERJ3GEYJ154	150K	1
	ERJ3GEYJ123	12K	1	R412	ERJ3GEYJ333	33K	1
	PQ4R10XJ222	2.2K	1	R413	ERJ3GEYJ563	56K	1 1
	ERDS2TJ104	100K	1 1	R414	ERJ3GEYJ103	10K 12K	1 1
1	ERDS2TJ472 PQ4R10XJ563	4.7K <u>A</u> 56K A	1 1	R415 R416	ERJ3GEYJ123 PQ4R18XJ223	22K	
	PQ4R10XJ153	56K <u>∧</u> 15K <u>∧</u>		R418	ERJ3GEYJ333	33K	1
1 1	PQ4R10XJ682	6.8K A	1	R419	ERJ3GEYJ333	33K	1
	PQ4R10XJ682	6.8K <u>∧</u>	1	R420	ERJ3GEYJ472	4.7K	1
R170	ERDS2TJ560	56 <b>△</b>	1 1	R422	ERJ3GEYJ153	15K	1
	ERJ3GEYJ103	10K	1 1	R423	ERJ3GEYJ153	15K	1
	ERJ3GEYJ472	4.7K	1	R424	ERJ3GEYJ563	56K	1 1
	ERJ3GEYJ472 ERJ3GEYJ682	4.7K 6.8K	1 1	R425 R428	ERJ3GEYJ472 ERJ3GEYJ474	4.7K 470K	
	ERJ3GEYJ563	56K	1	R429	ERJ3GEYJ474	470K	1
	ERJ3GEYJ473	47K	1	R430	ERJ3GEYJ683	68K	1
1 1	ERJ3GEYJ155	1.5M	1	R431	ERJ3GEYJ683	68K	1
1	ERJ3GEYJ684	680K	1 1	R432	ERJ3GEYJ564	560K	1
	ERJ3GEYJ101	100	1 1	R433	ERJ3GEYJ394 ERJ3GEYJ393	390K 39K	1 1
1 1	ERJ3GEYJ222 ERDS2TJ473	2.2K 47K	'	R434 R435	ERJ3GEYJ183	18K	
	ERJ3GEYJ332	3.3K	lil	R436	ERJ3GEYJ104	100K	1
1	PQ4R10XJ561	560	1	R437	ERJ3GEYJ124	120K	1
R190	ERJ3GEYJ333	33K	1	R438	PQ4R10XJ220	22	1
1 1	ERJ3GEYJ333	33K	1 1	R439	ERJ3GEYJ123	12K	1
	ERJ3GEYJ333	33K	1 1	R440 R441	ERDS1TJ270 ERDS1TJ330	27 33	1 1
	ERJ3GEYJ333 ERJ3GEYJ333	33K 33K		R441	ERJ3GEYJ000	0	
• •	ERJ3GEYJ222	2.2K	1 1	R443	ERJ3GEYJ332	3.3К	1
	ERJ3GEYJ272	2.7K	1	R444	ERJ3GEYJ104	100K	1
R209	ERJ3GEYJ223	22K	1	R445	PQ4R18XJ472	4.7K	1
	ERJ3GEYJ104	100K	1 1	R446	PQ4R18XJ472	4.7K	1 1
	ERJ3GEYJ474	470K	1 1	R447 R448	ERDS1TJ560 ERDS1TJ470	56 47	1 1
	ERJ3GEYJ394 ERJ3GEYJ224	390K 220K	1 1	R449	PQ4R18XJ332	3.3К	
	ERJ3GEYJ473	47K	1	R450	ERDS2TJ101	100	1
	ERJ3GEYJ334	330K	1	R451	ERDS2TJ121	120	1
	ERJ3GEYJ334	330K	1	R460	ERJ3GEYJ274	270K	1
	ERJ3GEYJ105	1M	1	R461	ERJ3GEYJ104	100K	1
1	ERJ3GEYJ392 ERJ3GEYJ272	3.9K 2.7K	1	R462 R463	ERJ3GEYJ104 ERJ3GEYJ104	100K 100K	1 1
	ERJ3GEYF472	4.7K		R501	PQ4R10XJ820	82	
1	ERJ3GEYF272	2.7K	1	R502	ERJ3GEYJ102	1K	1
R226	ERJ3GEYF222	2.2K	1	R503	ERJ3GEYJ272	2.7K	1
1	ERJ3GEYJ105	1M	1	R504	ERJ3GEYJ394	390K	1 1
	ERJ3GEYJ106	10M	1 1	R506 R507	ERDS1TJ330 PQ4R10XJ680	33	1 1
	ERDS1TJ472 ERDS1TJ472	4.7K 4.7K		R508	PQ4R10XJ101	100	
	ERJ3GEYJ223	22K	1 i 1	R509	PQ4R10XJ821	820	1 1
	ERJ3GEYJ223	22K	1	R510	PQ4R10XJ333	33K <u>A</u>	1
	ERJ3GEYJ223	22K	1	R511	PQ4R10XJ102	1K 🛕	1
	PQ4R10XJ681	680	1 1	R512	PQ4R10XJ123	12K	1 1
	PQ4R10XJ331	330	1 1	R513 R514	ERJ3GEYJ333 ERJ3GEYJ823	33K 82K	1 1
	PQ4R10XJ821 PQ4R10XJ102	820 1K		R515	ERJ3GEYJ473	47K	1
	ERJ3GEYJ223	22K	1 1	1.010	E NOOGE 10 17 C	····	'
	ERJ3GEYJ104	100K	1	J1~5	ERJ3GEYJ000	О	5
	ERJ3GEYJ104	100K	1	J7~14	ERJ3GEYJ000	О	8
	ERJ3GEYJ104	100K	1	J17~22	ERJ3GEYJ000	0	6
	ERJ3GEYJ104	100K	1 1	J50~54 J60~65	PQ4R18XJ000 ERJ3GEYJ000	0	5 6
	ERJ3GEYJ473 ERJ3GEYJ104	47K 100K	1 1	J60~65 J74~77	ERJ3GEYJ000	0	4
1	ERJ3GEYJ223	22K	1	J79~88	ERJ3GEYJ000	o	10
	PQ4R10XJ102	1K	1	J90	PQ4R18XJ000	o	1
	ERJ3GEYJ332	3.3K	1	J98	ERJ3GEYJ000	0	1
	ERJ3GEYJ103	10K	1	J302~J304	155119	DIODE(SI)	3
	ERJ3GEYJ563	56K	1 1				
4	ERJ3GEYJ823 ERJ3GEYJ471	82K 470	1				
	ERJ3GEYJ105	1M	1				
	ERJ3GEYJ154	150K	1				

Ref. No.	Part No.	Value	Pcs/Set	Ref. N	۷o.	Part No.	Value		Pcs/Set
		(CAPACITORS)		C204		ECUV1H100DCV	10P		1
C50	PQCUV1E104MD	0.1 S	1	C205		PQCUV1H333JC	0.033	s	lil
C51	PQCUV1E104MD	0.1 S	1	C206		PQCUV1C334ZF	0.33		1
C54	PQCUV1E104MD	0.1 S	1	C207		EECW5R5D473	0.047	s	1
C83	PQCUV1H102J	0.001 S	1	C233		PQCUV1H333JC	0.033	S	1
C84 C90	ECUV1H101JC	100P	1	C240		PQCUV1E104MD	0.1	S	1
	PQCUV1H103KB PQCUV1H222KB	0.01 S 0.0022 S	1 1	C301 C302		PQCUV1E104MD	0.1	S	1 1
C92	PQCUV1E104MD	0.1 S	;	C302	- 1	PQCUV1E104MD ECST1AX106	0.1 10	S	1 1
C93	PQCUV1H471JC	470P S	1	C401		PQCUV1C474ZF	0.47		1 1
C94	PQCUV1C224ZF	0.22	1 1	C402	- 1	PQ4R10XJ223	22K		1
	PQCUV1E104MD	0.1	1 ;	C403		PQCUV1E104MD	0.1	s	
C101	PQCUV1H103KB	0.01	1	C404		PQCUV1C105ZF	1		
1	PQCUV1E104MD	0.1 S	1	C405		ECST0JX226	22		1
	ECEA1CU221	220	1	C406	Į.	PQCUV1C105ZF	1		1
	ECEA1CU331	330	1	C407		PQCUV1C105ZF	1		1
, ,	PQCUV1E104MD PQCUV1H102J	0.1 S	1	C408		ECST0JY475	4.7		1
	PQCUV1H103KB	0.001 S 0.01 S	1 1	C409 C410		ECST1AX106	10		1
		0.01 S	1	C410		PQCUV1E104MD PQCUV1H151JC	0.1 150P	S	1
4	ECEA1AU221	220	1	C412		PQCUV1C105ZF	1	ĺ	
8 8		0.022	1	C413		PQCUV1H123MD	0.012	s	1
C114	PQCUV1H223MD	0.022	1	C416		PQCUV1H682KB	0.0068	s	1
		0.0022 S	1	C417	J	ECST1AX106	10		1
	ECEA0JKS220	22 S	1	C418		ECST0JY475	4.7		1
		470P S	1	C419	- 1	PQCUV1H153KB	0.015	_ [	1
1 1		220 S	1	C420		ECUV1H224ZF	0.22	s	1
		1000 0.01 S	1 1	C421 C422		ECST1CY105 ECST1CY225	1 2.2	- 1	1
		47 S	1	C422		PQCUV1H561JC	560P	s	1 1
		0.01	1 1	C425			0.047	s	4 1
		0.1 S	1	C427			330P	s	- 1
1		0.012	1	C429	F	9	0.1	s	1
C126	PQCUV1H222KB	0.0022 S	1	C430	F	PQCUV1H222KB	0.0022	s	1
		0.022	1	C431			22		1
		0.1 S	1	C432		3	0.033	S	1
		0.068	1	C433			390P 0.0027	S	1 1
		0.012 S 0.1 S	1	C434 C435			0.0027	s	1
4 A		0.047	1	C436			0.01	s	1
Y .		0.01 S	1	C441			22	s	1
		0.0033 S	1	C460	F	PQCUV1E683KB	0.068		1
	PQCUV1E104MD	0.1	1	C462	F		0.047	S	1
C139	PQCUV1E104MD	0.1 S	1	C463			560P	S	1
1		0.022	1	C502			0.1	S	1
		0.22 AS	1	C503			22 47	A S A S	1
		680P A S 680P A S	1	C504 C505			0.033	ΔS	1
: :		680P	1 1	C505			10	Δs	1
		2.2 A S	1	C507	1		22	<b>A</b>	1
		220 🛦	i	C508			100P	ΔÀ	1
1 -		220	1	C509			270P	Δs	1
		0.1	1	C510			0.1	S	1
C152		0.1 S	1	C550	E	ECKWKC472MF	0.0047	Δ	1
		0.012	1					l	
		1000	1				RF UNIT PARTS		
		680P S	1				HI ONII I AITIO		
1		0.033 680P S	1	PCB2	TE	PQLP10179M	P.C.BOARD ASS'Y (RTL)		1
		0.0027 S	1	1 002	ľ	Q2. 10770	,		1
		0.01 S	1						
		0.1 S	1		- 1		(ICS)	ļ	
		0.01 AS	1	IC301			IC		1
		270P	1	IC302	F	PQVIDBL5018V	IC		1
		10 S	1					1	1
C167		0.01 <u></u> <u>A</u> S	1				(TRANSISTORS)	1	- 1
		100P	1	0204			TRANSISTOR(SI)	s	1
	,	0.1 S	1	Q301 Q302			TRANSISTOR(SI)	s	1
		18P	1	Q302 Q303			TRANSISTOR(SI)		1
		18P 10P	1	Q304			TRANSISTOR(SI)		1
C203	ECUV1H100DCV	101	<u> </u>						

Ref. No.	Part No.	Value	Pcs/Set	Ref. No.	Part No.	Part Name & Description	Pcs/Set
Q305	2SC4116	TRANSISTOR(SI)	1	R329	ERJ3GEYJ334	330K	1
Q308	2SD601A	TRANSISTOR(SI)	1	R330	ERJ3GEYJ154	150K	1
Q309	PQVTD123J106	TRANSISTOR(SI)	1	R331	ERJ3GEYJ821	820	1 1
Q310	PQVTD123J106	TRANSISTOR(SI)	1	R332	ERJ3GEYJ102	1K	1
				R334	ERJ3GEYJ222	2.2K	1
			1	R335	ERJ3GEYJ222	2.2K	1
		(DIODES)	1	R336	ERJ3GEYJ103	10K	1
D301	MA728	DIODE(SI)	1	R337	ERJ3GEYJ220	22	1 1
D302	MA728	DIODE(SI)	1 1	R338	ERJ3GEYJ222	2.2K	1 1
D303	MA110	DIODE(SI)	1	R339	ERJ3GEYJ222	2.2K	1
D304	MA110	DIODE(SI)	1	R340	ERJ3GEYJ222	2.2K	1 1
D305	MA2S111	DIODE(SI)	1	R342	ERJ3GEYJ101	100	1 1
D306	MA110	DIODE(SI)	1	R350	ERJ3GEYJ821	820	1 1
D310	MA8047	DIODE(SI)	1 1	R353	ERJ3GEYJ222	2.2K	1 1
C391	MA110	DIODE(SI)	1	R356 R357	ERJ3GEYJ000 ERJ3GEYJ392	0 3.9K	
				R358	ERJ3GEYJ222	2.2K	1 1
		(COILS)		R359	ERJ3GEYJ680	68	1 1
L301	PQLQR1RM601	COIL	1 1	R360	ECUV1H040CCV	4P	1 1
L302	PQLQR1RM601	COIL	1 1	R361	ERJ3GEYJ000	0	1
L302	MQLRE10NJF	COIL	1 1	R362	ERJ3GEYJ680	68	1
L304	PQLQR2N3R3KT	COIL	1	L306	ERJ3GEYJ000	0	1
L305	PQLI2B201	COIL	1	L317	ERJ3GEYJ120	12	1
L319	MQLRE10NJF	COIL	1 1	L318	ERJ3GEYJ220	22	1
L322	PQLQR1RM601	COIL	1 1	C312	ERJ3GEYJ470	47	1
R389	PQLQR1RM601	COIL	1 1	C394	ERJ3GEYJ000	0	1 1
				C630	ERJ3GEYJ470	47	1
				C632	ERJ3GEYJ000	0	1
		(SAW FILTERS)	1 . 1				
FL301	PQVSM903C10L	SAW FILTER	1 1				
FL302	PQVS705CE927	SAW FILTER SAW FILTER	1 1	ı	4	(CAPACITORS)	1 1
FL303	PQVFSFE107MJ	SAW FILTER S		C302	ECUV1H0R5CCV	0.5P	1
FL304	PQVFCFH450B1	SAW FILTER	1 '	C303	ECUV1H050CCV	5P	1
				C304	ECUV1H102KBV	0.001	1 1
		(OTHERS)		C305	ECUV1H020CCV	2P	1 1
RX VCO	PQV030Z	CRYSTAL OSCILLATOR	1 1	C306	ECUV1H102KBV	0.001	1 1
TX VCO	PQV031Z	CRYSTAL OSCILLATOR	1	C308	ECUV1H030CCV	3P	1
VC301	ECRLA010A53R	TRIMMER CAPACITOR	1	C309	ECUV1H030CCV	3P	1
VR301	EVN5ESX50B54	VARIABLE RESISTOR	1	C310	ECEA1CKS470	47 8	1
X301	PQVCJ1025N0Z	CRYSTAL OSCILLATOR	1 1	C311	ECUV1H102KBV	0.001	1
CN301	PQJS12A99Z	CONNECTOR	1 1	C313	PQCUV1C224KB	0.22	1
				C314	ECUV1H682KBV	0.0068	1 1
		(05505050)		C315	ECUV1H332KBV	0.0033	
	ED 10051/1000	(RESISTORS)		C317	ECUV1H820JCV	82P	
R301	ERJ3GEYJ333	133K		C318 C319	ECUV1H430JCV ECUV1H080DCV	43P 8P	1 1
R302 R303	ERJ3GEYJ470 ERJ3GEYJ101	47 100		C320	ECUV1H103KBV	0.01	
R304	ERJ3GEYJ333	33K		C321	ECUV1H020CCV	2P	
R305	ERJ3GEYJ821	820	l i l	C322	ECUV1H030CCV	3P	1 1
R306	ERJ3GEYJ681	680	1 1	C323	ECUV1H102KBV	0.001	1
R307	ERJ3GEYJ223	22K	1	C324	ECUV1H102KBV	0.001	1 1
R308	ERJ3GEYJ153	15K	1	C325	ECUV1H102KBV	0.001	1
R309	ERJ3GEYJ153	15K	1 1	C327	ECUV1H102KBV	0.001	1
R310	ERJ3GEYJ222	2.2K	1	C328	ECUV1H060DCV	6P	1
R311	ERJ3GEYJ223	22K	1	C329	ECUV1H040CCV	4P	1
R312	ERJ3GEYJ223	22K	1 1	C330	ECUV1H103KBV	0.01	1
R313	ERJ3GEYJ470	47	1	C331	ECEA1CKS470	47 8	
R314	ERJ3GEYJ470	47	1	C333	ECUV1H223KBV	0.022	
R315	ERJ3GEYJ681	680	1 1	C334	PQCUV1C224KB	0.22	1
R316	ERJ3GEYJ153	15K	1 1	C336	ECUV1H680JCV	68P	
R317	ERJ3GEYJ153	15K 22K	1 1	C337 C338	ECUV1H103KBV ECUV1H220JCV	0.01 22P	1 1
R318 R319	ERJ3GEYJ223	470K		C338	PQCUV1C224ZF	0.22	
R319 R320	ERJ3GEYJ474 ERJ3GEYJ470	470K		C340	ECUV1H101JCV	100P	`  ¦
R320	ERJ3GEYJ391	390		C340	ECUV1H333KDV	0.033	
R323	ERJ3GEYJ474	470K		C342	ECUV1H102KBV	0.001	
R324	ERJ3GEYJ102	1K	1	C343	ECUV1H102KBV	0.001	1 1
R325	ERJ3GEYJ104	100K	1	C345	ECUV1H472KBV	0.0047	1
R327	ERJ3GEYJ824	820K	1	C346	ECUV1H020CCV	2P	1
		4.7K	1	C348	ECUV1H103KBV	0.01	1 1 I

Ref. No.	Part No.	Value	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
C349	ECUV1H103KBV	0.01	1			(RESISTORS)	
C350	ECUV1H103KBV	0.01	1	R701	ERJ3GEYJ105	1M	1
C351	PQCUV1C105ZF	1	1 1	R702	ERJ3GEYJ681	680	1
C352	ECUV1H103KBV	0.01	1	R703	ERJ3GEYJ103	10K	1
C354	ECUV1H030CCV	3P	1 1	R704	ERJ3GEYJ103	10K	1
C376	ECUV1H102KBV	0.001	1 1	R705	ERJ3GEYJ103	10K	1 1
C380	ECST0JX226	22	1 1	R706	ERJ3GEYJ103	10K	1
C381	ECUV1H1R5CCV	1.5P	1 1	R707	ERJ3GEYJ472	4.7K	1
C383	ECUV1H020CCV	2P	1 1	R708	ERJ3GEYJ472	4.7K	1
C385	ECUV1H101JCV	100P	1 1	R750	ERJ3GEYJ221	220	1 1
C386	ECUV1H102KBV	0.001	l 1 [	R751	ERJ3GEYJ221	220	1
C387	ECUV1H102KBV	0.001		R752	ERJ3GEYJ221	220	1
C388	ECUV1H101JCV	100P	1 1	R753	ERJ3GEYJ221	220	l i
C389	ECUV1H020CCV	2P	1 1	R754	ERJ3GEYJ221	220	lil
C390	ECUV1H020CCV	2P	1	R755	ERJ3GEYJ221	220	1
C392	ECUV1H102KBV	0.001	1	R756	ERJ3GEYJ221	220	
C393	ECUV1H103KBV	0.01	1 1	R757	ERJ3GEYJ221	220	
C395	ECEA1CKS100	10 S	1	R758	ERJ3GEYJ221	220	
C398	ECUV1H101JCV	100P	1 1	R759	ERJ3GEYJ221	220	1 ' 1
C399	ECUV1A105ZFV	1	'	R760	ERJ3GEYJ221		
C600		1 100P	1			220	1 1
1	ECUV1H101JCV		1	R761	ERJ3GEYJ221	220	1
C601	ECUV1H101JCV	100P	1 1	R762	ERJ3GEYJ221	220	1 1
C602	ECUV1H101JCV	100P	1	R763	ERJ3GEYJ221	220	1 1
C603	ECUV1H101JCV	100P	1	1			
C604	ECUV1H101JCV	100P	1	1			1 1
C605	ECUV1H101JCV	100P	1			(CAPACITORS)	
C606	ECUV1H101JCV	100P	1	C701	ECUV1E104ZFV	0.1	1 1
C607	ECUV1H101JCV	100P	1	C702	ECUV1E104ZFV	0.1	1
C608	ECUV1H101JCV	100P	1	C703	ECUV1E104ZFV	0.1	1
C610	ECUV1H101JCV	100P	1	C704	ECUV1E104ZFV	0.1	1 1
C611	ECUV1H101JCV	100P	1	C705	ECUV1H120JCV	12P	1 1
C612	ECUV1H101JCV	100P	1	C706	ECUV1H120JCV	12P	1
C613	ECUV1H101JCV	100P	1	C708	ECUV1E104ZFV	0.1	1 1
C615	ECUV1H101JCV	100P	1	C709	ECUV1E104ZFV	0.1	1 1
C616	ECUV1H101JCV	100P	1	C710	ECUV1H102KBV	0.001	1
C617	ECUV1H101JCV	100P	1	C711	ECUV1C104KBV	0.1	1 1
C618	ECUV1H101JCV	100P	1	C712	ECUV1C104KBV	0.1	1 1
C620	ECUV1H101JCV	100P	1	C713	ECUV1H101JCV	100P	l 1 l
C621	ECUV1H101JCV	100P	1	C714	ECUV1H101JCV	100P	
C622	ECUV1H101JCV	100P	i 1	C750	ECUV1H470JCV	47P	1 1
	ECUV1H101JCV	100P	1	C751	ECUV1H470JCV	47P	1 1
C623		100P	1	C752	ECUV1H470JCV	47P	1 1
C624	ECUV1H101JCV		1 1	C752	ECUV1H470JCV	47P	1 ; 1
C625	ECUV1H101JCV	100P	' 1	C753	ECUV1H470JCV	47P	1 1
			1			47P	;
			1	C755	ECUV1H470JCV	47P	1 ; 1
				C756	ECUV1H470JCV		1 ; 1
					ECUV1H470JCV	47P	
		DSP UNIT PARTS		C758	ECUV1H470JCV	47P	
				C759	ECUV1H470JCV	47P	1 ] [
PCB3	PQLP10180M	P.C.BOARD ASS'Y (RTL)	1	C760	ECUV1H470JCV	47P	1
				C761	ECUV1H470JCV	47P	1 1
				C762	ECUV1H470JCV	47P	1
		(ICS)		C763	ECUV1H470JCV	47P	1
IC701	PQVID6471A	ic	1				] [
IC702	PQVIKM29N4TC	ic	1	1			
IC703	PQVIMS7533HK	ic ·	1				
.5,50						1	1
						1	l l
		(COIL)				1	
1.704	POLOP1ET	COIL	1			1	
L701	PQLQR1ET	OO/L	' I			1	
			ĺ			1	
		(ODVOTAL OCCULATOR)		1			1 1
		(CRYSTAL OSCILLATOR)	, I				1
X701	PQVCJ3686N4Z	CRYSTAL OSCILLATOR	1				
				1		1	
				1			
	1	(CONNECTORS)		1		Í	
CN701	PQJS14A56Y	CONNECTOR	1				1 1
CN702	PQJS11A56Y	CONNECTOR	1		1		
				1		1	
				1			

This replacement parts list is U.S.A. version only. Refer to the simplified manual (cover) for other areas.

#### REPLACEMENT PARTS LIST Model KX-TCM940R-B Note: 1. RTL (Retention Time Limited) The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available. 2. Important safety notice. safety. When replacing any of these components, use only manufacturer's specified parts. 3. The S mark indicates service standard parts and may differ from production parts. **RESISTORS & CAPACITORS** Unless otherwise specified. All resistors are in ohms ( $\Omega$ ) K=1000 $\Omega$ , M=1000K $\Omega$ All capacitors are in MICRO FARADS ( $\mu F$ ) P= $\mu \mu F$ \*Type &Wattage of Resistor Туре ERC:Solid ERX:Metal Film PQ4R:Carbon ERG:Metal Oxide ERS:Fusible Resistor ERD:Carbon ERF:Cement Resistor PQRD:Carbon ER0:Metal Film Wattage 10,16:1/8W 14,25:1/4W 12:1/2W 1:1W 2:2W 3:3W \*Type & Voltage of Capacitor Type ECFD:Semi-Conductor FCCD FCKD ECBT PQCBC : Ceramic ECQS:Styrol ECQE,ECQV,ECQG: Polyester PQCUV:Chip ECEA,ECSZ : Electrolytic ECQMS:Mica ECQP : Polypropylene Voltage ECQ Type **ECQG ECSZ** Type Others **ECQV** Type 1H: 50V 05: 50V 0F:3.15V :6.3V OJ 2A:100V 1:100V 1A:10V 1A :10V 50,1H:50V 1C :16V :63V 2E:250V 2:200V 1V:35V 1.1 2H:500V 0J:6.3V 1E,25:25V 2A :100V

Ref. No.	Part No.	Part Name & Descriptio	n	Pcs/Se
		MAIN P.C.BOARD PARTS		
PCB100	PQWPTCM940BR	P.C.BOARD ASS'Y (RTL)		1
IC201 IC202 IC203 IC204 IC205 IC206 IC207 IC208 IC401 IC402	MN151233KZAC AN6165SB AN6183SAE1 PQVIXCC3501P PQVIXC3002PR PQVIXC3002PR PQVIXC3002PR PQVINJM2113V PQVIM64084AG PQVIDBL5018V	(ICS) IC	S	1 1 1 1 1 1 1 1 1
Q201 Q202 Q203 Q204 Q205 Q206 Q208 Q209 Q212 Q213 Q214 Q215 Q217 Q230 Q401 Q402 Q403 Q404 Q405	2SD1819A 2SD1819A PQVTDTB123E 2SD1819A PQVTDTA143EU PQVTDTC143E PQVTDTC143E PQVTD123T146 PQVTD123J106 2SD1819A 2SD1819A PQVTDTC144TU PQVTDTC144TU PQVTDTC143E 2SC4571R77 2SC4526R24 2SC4227R34 2SC4116	(TRANSISTORS) TRANSISTOR(SI)	\$ \$ \$ \$ \$ \$ \$	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
D201 D202 D205 D206 D207 D208 D209 D210 D212 D213 D214 D215 D217 D401 D402 D403	MA110 PQVDRB751H4 PQVDBR1112H PQVDPY1112H PQVDPY1112H PQVDPY1112H PQVDPY1112H PQVDPY1112H PQVDBR1112H MA110 MA3062 MA110 MA110 PQVDRB751H4 PQVDRB751H4 MA110	(DIODES) DIODE(SI) DIODE(SI) LED LED LED LED LED LED DIODE(SI)		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
L201 L202 L203 L400	PQLQR3ER10K PQLQR3ER10K PQLQR3ER10K PQLQR1RM601	(COILS) COIL COIL COIL COIL		1 1 1 1

1101. 110.	l altivo.	Tak Namo a Boompao.	1 00,0			
CABINET & ELECTRICAL PARTS						
101	IPQYM10063V3	IFRONT CABINET	1 1			
102	PQKF10172Z1	CABINET COVER	1			
103	PQAX2P04Z	SPEAKER	1			
104	PQJT10112Z	CHARGE TERMINAL	3			
105	PQJT10113Z	CHARGE TERMINAL	2			
106	PQSA10048Z	ANTENNA	1			
107	PQSX10043Z	KEYBOARD SWITCH	1			
108	PQSX10045Y	KEYBOARD SWITCH	1			
109	PQHR10486Z1	SP HOLDER	1			
110	PQMC10217Z	SHIELD COVER	1			
111	PQMC10218Z	SHIELD COVER	1			
112	PQQT11236Y	LABEL	1			
113	XTB26+8J	SCREW	2			
114	XTW26+12F	SCREW	4			
115	PQHS10293Z	COVER	1			
116	PQHR10511Z	LED SPACER	1			
		1				
			1			
			ł			

Part Name & Description

Ref. No.

Part No.

L401

L402 L404

L405

L406

L413

L414

PQLQR1RM601

PQLQR1RM601

PQLQR2N3R3K

MQLRE2N7DF

PQLQR1RM601

PQLQR1RM601

PQLI2B201

COIL

COIL

COIL

COIL

COIL

COIL

COIL

1

Pcs/Set

R212 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ681 680 1 1 R213 ERJ3GEYJ103 10K 1 R407 ERJ3GEYJ153 15K 1 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ153 15K 1 1 R215 ERJ3GEYJ274 270K 1 R409 ERJ3GEYJ153 15K 1 1 R216 ERJ3GEYJ272 4.7K 1 R410 ERJ3GEYJ153 15K 1 1 R216 ERJ3GEYJ272 4.7K 1 R410 ERJ3GEYJ183 18K 1 1 R219 ERJ3GEYJ124 120K 1 R411 ERJ3GEYJ183 18K 1 1 R219 ERJ3GEYJ104 100K 1 R412 ERJ3GEYJ183 18K 1 1 R220 ERJ3GEYJ104 100K 1 R413 ERJ3GEYJ470 47 1 1 R221 ERJ3GEYJ104 100K 1 R414 ERJ3GEYJ470 47 1 1 R221 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ681 680 1 1 R223 ERJ3GEYJ163 15K 1 R416 ERJ3GEYJ153 15K 1 R224 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R224 ERJ3GEYJ163 68K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ101 100 1 R228 ERJ3GEYJ273 27K 1 R420 ERJ3GEYJ101 100 1 R228 ERJ3GEYJ273 27K 1 R421 ERJ3GEYJ101 100 1 R229 ERJ3GEYJ273 27K 1 R421 ERJ3GEYJ101 100 1 R229 ERJ3GEYJ273 47K 1 R422 ERJ3GEYJ101 100 1 R229 ERJ3GEYJ273 47K 1 R424 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ273 47K 1 R421 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ273 47K 1 R422 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R424 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R425 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R424 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R424 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R425 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ472 4.7K 1 R427 ERJ3GEYJ104 4.7K 1 R428 ERJ3GEYJ104 4.7K 1 R428 ERJ3GEYJ104 4.7K 1 R428 ERJ3GEYJ104 4.7K 1 R429 ERJ3GEYJ104 4.7K 1 R4	Ref. No.	Part No.	Part Name & Description	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
	L415	PQLQR1RM601	COIL	1	R235	ERJ3GEYJ823	82K	1
Fold	L416	PQLQR1RM601	COIL	1	1			1
L419				1		ERJ3GEYJ101	100	1
Le20	1					1	82K	1 1
L421								1
La22   MOLRESNUF   COIL								1
Fild1								1 1
	L422	WIGLILLONOUP	COIL	'			1	
Fuldor								;
FLA012	1 1		(SAW FILTERS)					1 '
FLA02   POVSTOSCP903   SAW FILTER   1   R250   ERJGGEV/103   100	FL401	PQVSM927C11L	And the second of the second o	1 1			1	1 ' 1
FL404								
VR201			SAW FILTER S	1	R251			i i
R254	FL404	PQVFCFH450B1	SAW FILTER	1	R252			1
VARIOL   VARIABLE RESISTORS    1   R255   ERJGEFVJI02   1   1   1   1   1   1   1   1   1						ERJ3GEYJ221	220	1
VARIABLE RESISTOR								1 1
VR202	L/Deat	T. /. / T. // C. / C. / C. / C. / C. / C	· ·					1 1
VR401							1	
VARIABLE RESISTOR								
Name								
R264	'''''	110_0/(00004	THE INDEED FEDORAL	'				
X201								
X201	1 1		(CRYSTAL OSCILLATORS)					1 1
Name	X201	PQVBTCC3.99M	,	1				
R282	X202	PQVCE3276N9Z	CRYSTAL OSCILLATOR	1				1 1
CTHERS   CTHERS   R286	X401	PQVCJ1025N0Z	CRYSTAL OSCILLATOR	1	R282	ERJ3GEYJ224	220K	1 1
TOYUCO POW033Z CRYSTAL OSCILLATOR 1 R289 ERJ3GEV/1273 47K 1 POFFERDB111GP BUZZER 1 R290 ERJ3GEV/1273 27K 1 POFFERDB111GP BUZZER 1 R291 ERJ3GEV/1273 27K 1 POFFERDB111GP BUZZER 1 R294 ERJ3GEV/102 IK 1 R296 ERJ3GEV/103 IX	]				R283			1
TXVCO								
RX VCO	L 1							
VC401   ECRLADIASASR   TRIMMER CAPACITOR   1   R291   ERJ3GEVJ100   10   1   1   1   1   1   1   1   1								
E100 PQLM122Z MICROPHONE 1 1 R294 ERJ3GEYJ102 1K 1 1 R294 ERJ3GEYJ102 1.5K 1 1 R296 ERJ3GEYJ102 1.5K 1 1 R296 ERJ3GEYJ102 1.5K 1 1 R296 ERJ3GEYJ103 130 1 1 R296 ERJ3GEYJ331 330 1 1 R296 ERJ3GEYJ373 47K 1 R396 ERJ3GEYJ391 390 1 1 R296 ERJ3GEYJ373 47K 1 R396 ERJ3GEYJ391 390 1 1 R296 ERJ3GEYJ373 47K 1 R396 ERJ3GEYJ391 390 1 1 R296 ERJ3GEYJ373 47K 1 R396 ERJ3GEYJ222 2.2K 1 R296 ERJ3GEYJ373 47K 1 R401 ERJ3GEYJ222 2.2K 1 R296 ERJ3GEYJ373 47K 1 R401 ERJ3GEYJ222 2.2K 1 R296 ERJ3GEYJ373 47K 1 R402 ERJ3GEYJ373 33K 1 1 R291 ERJ3GEYJ222 2.2K 1 R403 ERJ3GEYJ333 33K 1 1 R291 ERJ3GEYJ373 47K 1 R403 ERJ3GEYJ373 33K 1 1 R291 ERJ3GEYJ373 47K 1 R403 ERJ3GEYJ373 33K 1 1 R291 ERJ3GEYJ373 47K 1 R403 ERJ3GEYJ373 33K 1 1 R291 ERJ3GEYJ373 47K 1 R408 ERJ3GEYJ373 33K 1 1 R291 ERJ3GEYJ373 47K 1 R408 ERJ3GEYJ373 33K 1 1 R291 ERJ3GEYJ373 10K 1 R406 ERJ3GEYJ373 33K 1 1 R291 ERJ3GEYJ373 10K 1 R408 ERJ3GEYJ373 15K 1 R291 ERJ3GEYJ374 1 R408 ERJ3GEYJ373 15K 1 R291 ERJ3GEYJ374 1 R408 ERJ3GEYJ373 15K 1 R291 ERJ3GEYJ374 270K 1 R408 ERJ3GEYJ383 16K 1 R291 ERJ3GEYJ374 47K 1 R408 ERJ3GEYJ383 16K 1 R291 ERJ3GEYJ394 18K 1 R291 ERJ3GEYJ395 15K 1 R408 ER								
E101 PQJM122Z MICROPHONE 1 R296 ERJ3GEYJ1331 330 1 1 R201 ERJ3GEYJ103 10K 1 R299 ERJ3GEYJ331 330 1 1 R202 ERJ3GEYJ103 10K 1 R300 ERJ3GEYJ331 330 1 1 R203 ERJ3GEYJ332 3,3K 1 R303 ERJ3GEYJ331 330 1 1 R203 ERJ3GEYJ473 47K 1 R303 ERJ3GEYJ333 336 1 1 R206 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ333 336 1 1 R207 ERJ3GEYJ473 47K 1 R308 ERJ3GEYJ333 33K 1 1 R208 ERJ3GEYJ473 47K 1 R308 ERJ3GEYJ222 2,2K 1 1 R209 ERJ3GEYJ473 47K 1 R308 ERJ3GEYJ222 2,2K 1 1 R209 ERJ3GEYJ473 47K 1 R404 ERJ3GEYJ222 2,2K 1 1 R209 ERJ3GEYJ244 220K 1 R402 ERJ3GEYJ201 47 1 1 R209 ERJ3GEYJ24 220K 1 R404 ERJ3GEYJ223 22K 1 1 R209 ERJ3GEYJ24 220K 1 R404 ERJ3GEYJ203 23K 1 1 R210 ERJ3GEYJ26 680 1 R404 ERJ3GEYJ101 100 1 1 R211 ERJ3GEYJ222 2,2K 1 R404 ERJ3GEYJ333 3K 2 1 1 R211 ERJ3GEYJ222 2,2K 1 R404 ERJ3GEYJ333 3K 2 1 1 R212 ERJ3GEYJ103 10K 1 R404 ERJ3GEYJ333 3K 2 1 1 R213 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ81 820 1 1 R214 ERJ3GEYJ222 2,2K 1 R409 ERJ3GEYJ81 800 1 1 R214 ERJ3GEYJ222 2,2K 1 R409 ERJ3GEYJ81 800 1 1 R215 ERJ3GEYJ103 10K 1 R407 ERJ3GEYJ81 15K 1 1 R216 ERJ3GEYJ274 270K 1 R409 ERJ3GEYJ153 15K 1 1 R217 ERJ3GEYJ274 270K 1 R409 ERJ3GEYJ153 15K 1 1 R218 ERJ3GEYJ274 270K 1 R409 ERJ3GEYJ153 15K 1 1 R219 ERJ3GEYJ274 120K 1 R410 ERJ3GEYJ153 15K 1 1 R219 ERJ3GEYJ274 120K 1 R411 ERJ3GEYJ153 15K 1 1 R219 ERJ3GEYJ124 120K 1 R411 ERJ3GEYJ153 15K 1 1 R219 ERJ3GEYJ124 120K 1 R411 ERJ3GEYJ153 15K 1 1 R220 ERJ3GEYJ164 100K 1 R411 ERJ3GEYJ153 15K 1 1 R221 ERJ3GEYJ163 15K 1 R411 ERJ3GEYJ470 47 1 1 R222 ERJ3GEYJ164 100K 1 R411 ERJ3GEYJ470 47 1 1 R222 ERJ3GEYJ163 15K 1 R411 ERJ3GEYJ470 47 1 1 R223 ERJ3GEYJ164 100K 1 R415 ERJ3GEYJ470 47 1 1 R224 ERJ3GEYJ163 15K 1 R416 ERJ3GEYJ470 47 1 1 R225 ERJ3GEYJ164 100K 1 R415 ERJ3GEYJ470 47 1 1 R226 ERJ3GEYJ163 15K 1 R416 ERJ3GEYJ470 47 1 1 R227 ERJ3GEYJ273 27K 1 R411 ERJ3GEYJ470 47 1 1 R228 ERJ3GEYJ164 100K 1 R415 ERJ3GEYJ470 47 1 1 R229 ERJ3GEYJ173 47K 1 R421 ERJ3GEYJ470 47 1 1 R220 ERJ3GEYJ473 47K 1 R421 ERJ3GEYJ470 47 1 1 R221 ERJ3GEYJ473 47K 1 R421 ERJ3GEYJ470 47 1 1 R222 ERJ3GEYJ473 47K 1 R422 ERJ3GEYJ470 47 1 1 R223 ERJ3GEYJ473 47K				1				
R297 ERJ3GEYJ331 330 1 R201 ERJ3GEYJ103 10K 1 R300 ERJ3GEYJ331 330 1 R202 ERJ3GEYJ332 3.8K 1 R303 ERJ3GEYJ331 330 1 R203 ERJ3GEYJ473 47K 1 R306 ERJ3GEYJ331 390 1 R203 ERJ3GEYJ473 47K 1 R306 ERJ3GEYJ333 39K 1 R205 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ222 2.2K 1 R206 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ222 2.2K 1 R207 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ223 22K 1 R208 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ223 22K 1 R209 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ223 22K 1 R208 ERJ3GEYJ473 47K 1 R401 ERJ3GEYJ223 22K 1 R209 ERJ3GEYJ473 47K 1 R401 ERJ3GEYJ223 22K 1 R209 ERJ3GEYJ473 47K 1 R403 ERJ3GEYJ224 20K 1 R402 ERJ3GEYJ224 20K 1 R402 ERJ3GEYJ224 20K 1 R404 ERJ3GEYJ224 20K 1 R404 ERJ3GEYJ224 20K 1 R404 ERJ3GEYJ224 20K 1 R404 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ222 2.2K 1 R406 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ222 2.2K 1 R406 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ222 2.2K 1 R406 ERJ3GEYJ361 680 1 R404 ERJ3GEYJ333 33K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ333 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ353 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ353 15K 1 R215 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ55 15K 1 R215 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ55 15K 1 R216 ERJ3GEYJ224 270K 1 R409 ERJ3GEYJ53 15K 1 R216 ERJ3GEYJ224 270K 1 R409 ERJ3GEYJ222 2.2K 1 R409 ERJ3GEYJ222 2.2K 1 R409 ERJ3GEYJ153 15K 1 R216 ERJ3GEYJ224 4 120K 1 R411 ERJ3GEYJ22 2.2K 1 R409 ERJ3GEYJ153 15K 1 R216 ERJ3GEYJ154 120K 1 R411 ERJ3GEYJ22 2.2K 1 R409 ERJ3GEYJ153 15K 1 R216 ERJ3GEYJ364 100K 1 R411 ERJ3GEYJ22 2.2K 1 R409 ERJ3GEYJ153 15K 1 R224 ERJ3GEYJ153 15K 1 R411 ERJ3GEYJ153 15K 1 R224 ERJ3GEYJ153 15K 1 R412 ERJ3GEYJ153 15K 1 R414								
R296	12.01	, downer	MINORION TIONE					1
R201								1
R202	1 1		(RESISTORS)		R299	ERJ3GEYJ331	330	1
R203 ERJ3GEYJ473 47K 1 1 R306 ERJ3GEYJ333 33K 1 1 R205 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ222 2.2K 1 1 R206 ERJ3GEYJ473 47K 1 R308 ERJ3GEYJ103 10K 1 R207 ERJ3GEYJ273 47K 1 R308 ERJ3GEYJ223 22K 1 1 R208 ERJ3GEYJ224 220K 1 R401 ERJ3GEYJ223 22K 1 1 R209 ERJ3GEYJ273 47K 1 R402 ERJ3GEYJ270 47 1 R209 ERJ3GEYJ473 47K 1 R403 ERJ3GEYJ470 47 1 R210 ERJ3GEYJ473 47K 1 R404 ERJ3GEYJ3GEYJ3GEYJ3GEYJ473 47K 1 R404 ERJ3GEYJ3GEYJ3GEYJ3GEYJ3GEYJ3GEYJ3GEYJ3GEY	R201	ERJ3GEYJ103	10K	1				
R205 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ222 2.2K 1 R206 ERJ3GEYJ473 47K 1 R307 ERJ3GEYJ222 2.2K 1 R206 ERJ3GEYJ473 47K 1 R308 ERJ3GEYJ223 22K 1 R208 ERJ3GEYJ473 47K 1 R402 ERJ3GEYJ223 22K 1 R208 ERJ3GEYJ473 47K 1 R402 ERJ3GEYJ470 47 1 R209 ERJ3GEYJ4681 680 1 R403 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ222 2.2K 1 R405 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ222 2.2K 1 R405 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ222 2.2K 1 R406 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ821 820 1 R212 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ821 820 1 R213 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ53 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ53 15K 1 R214 ERJ3GEYJ222 2.2K 1 R409 ERJ3GEYJ53 15K 1 R215 ERJ3GEYJ274 2.70K 1 R409 ERJ3GEYJ153 15K 1 R216 ERJ3GEYJ274 2.70K 1 R409 ERJ3GEYJ153 15K 1 R216 ERJ3GEYJ274 2.70K 1 R409 ERJ3GEYJ183 18K 1 R218 ERJ3GEYJ104 100K 1 R411 ERJ3GEYJ222 2.2K 1 R218 ERJ3GEYJ104 100K 1 R411 ERJ3GEYJ183 18K 1 R220 ERJ3GEYJ104 100K 1 R411 ERJ3GEYJ183 18K 1 R220 ERJ3GEYJ104 100K 1 R412 ERJ3GEYJ183 18K 1 R221 ERJ3GEYJ104 100K 1 R414 ERJ3GEYJ183 18K 1 R222 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ163 15K 1 R223 ERJ3GEYJ103 15K 1 R416 ERJ3GEYJ163 15K 1 R417 ERJ3GEYJ163 15K 1 R418 ERJ3GEYJ163 15K 1 R428 ERJ3GEYJ163 15K 1 R429 ERJ3GEYJ164 100K 1 R429 ERJ3GEYJ164 100K 1 R42								
R206 ERJ3GEYJ473 47K 1 R308 ERJ3GEYJ103 10K 1 R207 ERJ3GEYJ474 47K 1 R401 ERJ3GEYJ223 22K 1 R208 ERJ3GEYJ224 220K 1 R402 ERJ3GEYJ470 47 1 R209 ERJ3GEYJ224 220K 1 R403 ERJ3GEYJ470 47 1 R209 ERJ3GEYJ831 680 1 R404 ERJ3GEYJ101 100 1 R210 ERJ3GEYJ822 2.2K 1 R403 ERJ3GEYJ101 100 1 R211 ERJ3GEYJ222 2.2K 1 R404 ERJ3GEYJ821 820 1 R211 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ821 820 1 R213 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ821 820 1 R213 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ821 820 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ831 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ53 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ53 15K 1 R214 ERJ3GEYJ224 2.70K 1 R409 ERJ3GEYJ53 15K 1 R216 ERJ3GEYJ472 4.7K 1 R409 ERJ3GEYJ53 15K 1 R218 ERJ3GEYJ472 4.7K 1 R410 ERJ3GEYJ183 18K 1 R219 ERJ3GEYJ104 100K 1 R411 ERJ3GEYJ183 18K 1 R229 ERJ3GEYJ104 100K 1 R412 ERJ3GEYJ183 18K 1 R221 ERJ3GEYJ104 100K 1 R413 ERJ3GEYJ183 18K 1 R221 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ170 47 1 R221 ERJ3GEYJ163 15K 1 R416 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R224 ERJ3GEYJ163 15K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R420 ERJ3GEYJ153 15K 1 R420 ERJ3GEYJ153 15K 1 R421 ERJ3GEYJ1			•					
R207 ERJ3GEYJ473 47K 1 R401 ERJ3GEYJ223 22K 1 R208 ERJ3GEYJ473 47K 1 R402 ERJ3GEYJ470 47 1 R209 ERJ3GEYJ473 47K 1 R402 ERJ3GEYJ470 47 1 R210 ERJ3GEYJ4881 680 1 R404 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ222 2.2K 1 R405 ERJ3GEYJ333 33K 1 R211 ERJ3GEYJ222 2.2K 1 R405 ERJ3GEYJ333 33K 1 R212 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ821 820 1 R212 ERJ3GEYJ103 10K 1 R407 ERJ3GEYJ53 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ53 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ53 15K 1 R214 ERJ3GEYJ224 2.7K 1 R408 ERJ3GEYJ53 15K 1 R216 ERJ3GEYJ274 2.70K 1 R409 ERJ3GEYJ53 15K 1 R216 ERJ3GEYJ774 4.7K 1 R410 ERJ3GEYJ222 2.2K 1 R411 ERJ3GEYJ222 2.2K 1 R411 ERJ3GEYJ472 4.7K 1 R411 ERJ3GEYJ383 18K 1 R219 ERJ3GEYJ104 100K 1 R411 ERJ3GEYJ183 18K 1 R220 ERJ3GEYJ104 100K 1 R413 ERJ3GEYJ470 47 1 R221 ERJ3GEYJ104 100K 1 R414 ERJ3GEYJ470 47 1 R222 ERJ3GEYJ153 15K 1 R414 ERJ3GEYJ470 47 1 R222 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ581 680 1 R223 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ581 15K 1 R224 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ581 15K 1 R224 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ581 15K 1 R224 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ581 15K 1 R416 ERJ3GEYJ581 15K 1 R224 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ581 15K 1 R224 ERJ3GEYJ53 27K 1 R420 ERJ3GEYJ53 22K 1 R225 ERJ3GEYJ53 27K 1 R420 ERJ3GEYJ53 15K 1 R420 ERJ3GEYJ53 22K 1 R225 ERJ3GEYJ73 27K 1 R420 ERJ3GEYJ740 47 1 100K 1 R227 ERJ3GEYJ73 27K 1 R420 ERJ3GEYJ740 47 1 100K 1 R229 ERJ3GEYJ73 27K 1 R420 ERJ3GEYJ740 47 1 100K 1 R229 ERJ3GEYJ73 27K 1 R420 ERJ3GEYJ740 47 1 100K 1 R229 ERJ3GEYJ73 47K 1 R422 ERJ3GEYJ740 470K 1 R229 ERJ3GEYJ73 27K 1 R424 ERJ3GEYJ740 470K 1 R229 ERJ3GEYJ73 47K 1 R422 ERJ3GEYJ740 470K 1 R229 ERJ3GEYJ73 47K 1 R422 ERJ3GEYJ740 470K 1 R229 ERJ3GEYJ73 47K 1 R422 ERJ3GEYJ740 470K 1 R229 ERJ3GEYJ73 27K 1 R422 ERJ3GEYJ740 470K 1 R229 ERJ3GEYJ73 47K 1 R422 ERJ3GEYJ74 470K 1 R229 ERJ3GEYJ73 47K 1 R422 ERJ3GEYJ740 47K 1 R228 ERJ3GEYJ740 47K 1 R228 ERJ3GEYJ740 47K 1 R228 ERJ3GEYJ740 47K 1 R228	. ,			3				· ·
R208								
R209								1
R210 ERJ3GEYJ681 680 1 1 R404 ERJ3GEYJ333 33K 1 1 R211 ERJ3GEYJ222 2.2K 1 R405 ERJ3GEYJ821 820 1 1 R405 ERJ3GEYJ821 820 1 1 R212 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ81 680 1 1 R213 ERJ3GEYJ103 10K 1 R407 ERJ3GEYJ153 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ153 15K 1 R214 ERJ3GEYJ222 2.2K 1 R409 ERJ3GEYJ153 15K 1 R215 ERJ3GEYJ472 4.7K 1 R409 ERJ3GEYJ153 15K 1 R216 ERJ3GEYJ472 4.7K 1 R410 ERJ3GEYJ222 2.2K 1 R218 ERJ3GEYJ472 4.7K 1 R411 ERJ3GEYJ222 2.2K 1 R218 ERJ3GEYJ124 120K 1 R411 ERJ3GEYJ183 18K 1 R219 ERJ3GEYJ124 120K 1 R412 ERJ3GEYJ183 18K 1 R220 ERJ3GEYJ104 100K 1 R413 ERJ3GEYJ170 47 1 R221 ERJ3GEYJ168 68K 1 R414 ERJ3GEYJ470 47 1 R222 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ881 680 1 R223 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ881 680 1 R223 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ815 15K 1 R416 ERJ3GEYJ815 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ153 15K 1 R429 ERJ3GEYJ154 470K 1 R429				4				1
R211 ERJ3GEYJ222 2.2K 1 R405 ERJ3GEYJ821 820 1 R212 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ681 680 1 R407 ERJ3GEYJ153 15K 1 R408 ERJ3GEYJ153 15K 1 R408 ERJ3GEYJ153 15K 1 R408 ERJ3GEYJ153 15K 1 R408 ERJ3GEYJ153 15K 1 R409 ERJ3GEYJ153 15K 1 R409 ERJ3GEYJ153 15K 1 R410 ERJ3GEYJ222 2.2K 1 R215 ERJ3GEYJ274 2.70K 1 R410 ERJ3GEYJ222 2.2K 1 R216 ERJ3GEYJ472 4.7K 1 R410 ERJ3GEYJ222 2.2K 1 R218 ERJ3GEYJ124 120K 1 R411 ERJ3GEYJ183 18K 1 R412 ERJ3GEYJ183 18K 1 R412 ERJ3GEYJ163 18K 1 R412 ERJ3GEYJ163 18K 1 R412 ERJ3GEYJ163 18K 1 R412 ERJ3GEYJ163 18K 1 R413 ERJ3GEYJ163 18K 1 R414 ERJ3GEYJ683 68K 1 R414 ERJ3GEYJ470 47 1 R415 ERJ3GEYJ681 680 1 R415 ERJ3GEYJ163 15K 1 R415 ERJ3GEYJ681 680 1 R415 ERJ3GEYJ163 15K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ470 47 1 R420 ERJ3GEYJ470 47 1 R420 ERJ3GEYJ473 47K 1 R420 ERJ3GEYJ470 47 1 R421 ERJ3GEYJ470 47 1 R429 ERJ3GEYJ473 47K 1 R420 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ473 47K 1 R420 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ473 47K 1 R424 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ473 47K 1 R426 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ473 47K 1 R429 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ473 47K 1 R429 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ473 47K 1 R429 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ474 470K 1 R429 ERJ3GEYJ473 47K 1 R429 ERJ3GEYJ474 470K 1 R429 E				1				1
R212 ERJ3GEYJ103 10K 1 R406 ERJ3GEYJ681 680 1 1 R213 ERJ3GEYJ103 10K 1 R407 ERJ3GEYJ153 15K 1 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ153 15K 1 1 R215 ERJ3GEYJ274 270K 1 R409 ERJ3GEYJ153 15K 1 1 R216 ERJ3GEYJ272 4.7K 1 R410 ERJ3GEYJ153 15K 1 1 R216 ERJ3GEYJ272 4.7K 1 R410 ERJ3GEYJ222 2.2K 1 1 R218 ERJ3GEYJ124 120K 1 R411 ERJ3GEYJ183 18K 1 1 R219 ERJ3GEYJ124 120K 1 R412 ERJ3GEYJ183 18K 1 1 R220 ERJ3GEYJ104 100K 1 R413 ERJ3GEYJ183 18K 1 1 R220 ERJ3GEYJ104 100K 1 R414 ERJ3GEYJ470 47 1 1 R221 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ681 680 1 1 R221 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ681 680 1 1 R223 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R224 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ101 100 1 R228 ERJ3GEYJ273 27K 1 R420 ERJ3GEYJ101 100 1 R228 ERJ3GEYJ273 27K 1 R421 ERJ3GEYJ101 100 1 R228 ERJ3GEYJ273 27K 1 R421 ERJ3GEYJ101 100 1 R229 ERJ3GEYJ273 47K 1 R422 ERJ3GEYJ101 100 1 R229 ERJ3GEYJ273 47K 1 R421 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ273 47K 1 R422 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R424 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R424 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R424 ERJ3GEYJ104 470K 1 R229 ERJ3GEYJ473 47K 1 R425 ERJ3GEYJ104 400K 1 R229 ERJ3GEYJ472 4.7K 1 R427 ERJ3GEYJ564 560K 1 R223 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ104 4.7K 1 R429 ERJ3GEYJ104 4.						ERJ3GEYJ821	820	1
R213 ERJ3GEYJ103 10K 1 R407 ERJ3GEYJ153 15K 1 R214 ERJ3GEYJ222 2.2K 1 R408 ERJ3GEYJ153 15K 1 R215 ERJ3GEYJ274 270K 1 R409 ERJ3GEYJ153 15K 1 R216 ERJ3GEYJ472 4.7K 1 R410 ERJ3GEYJ222 2.2K 1 R218 ERJ3GEYJ472 4.7K 1 R410 ERJ3GEYJ222 2.2K 1 R218 ERJ3GEYJ124 120K 1 R411 ERJ3GEYJ183 18K 1 R219 ERJ3GEYJ124 120K 1 R412 ERJ3GEYJ183 18K 1 R220 ERJ3GEYJ104 100K 1 R413 ERJ3GEYJ470 47 1 R221 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ470 47 1 R222 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ470 47 1 R415 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ470 47 1 R421 ERJ3GEYJ470 47 1 R422 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ				1				
R215 ERJ3GEYJ274 270K 1 R409 ERJ3GEYJ153 15K 1 R218 ERJ3GEYJ172 4.7K 1 R410 ERJ3GEYJ222 2.2K 1 R218 ERJ3GEYJ172 120K 1 R411 ERJ3GEYJ183 18K 1 R219 ERJ3GEYJ124 120K 1 R412 ERJ3GEYJ183 18K 1 R220 ERJ3GEYJ104 100K 1 R413 ERJ3GEYJ470 47 1 R221 ERJ3GEYJ883 68K 1 R414 ERJ3GEYJ470 47 1 R222 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ681 680 1 R223 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R224 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R224 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R225 ERJ3GEYJ1683 68K 1 R418 ERJ3GEYJ153 15K 1 R226 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ153 15K 1 R226 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100 1 R421 ERJ3GEYJ104 100 1 R422 ERJ3GEYJ104 100 1 R423 ERJ3GEYJ104 100 1 R424 ERJ3GEYJ104 100 1 R423 ERJ3GEYJ104 100 1 R424 ERJ3GEYJ104 100 1 R423 ERJ3GEYJ104 100 1 R424 ERJ3GEYJ104 100 1 R425 ERJ3GEYJ104 100 1 R426 ERJ3GEYJ104 100 1 R426 ERJ3GEYJ104 100 1 R427 ERJ3GEYJ104 100 1 R428 ERJ3GEYJ472 4.7K 1 R425 ERJ3GEYJ472 4.7K 1 R426 ERJ3GEYJ472 4.7K 1 R427 ERJ3GEYJ474 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ474								
R216								1
R218								
R219								
R220 ERJ3GEYJ104 100K 1 R414 ERJ3GEYJ470 47 1 R423 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ104 100K 1 R429 ERJ3GEYJ104 100K 1 R429 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R429 ERJ3GEYJ101 100 1 R429 ERJ3GEYJ101 100 1 R429 ERJ3GEYJ104 470K 1 R429 ERJ3GEYJ104 470K 1 R429 ERJ3GEYJ104 470K 1 R429 ERJ3GEYJ104 100K 1 R429 ERJ3GEYJ104 1 R429 ERJ3GEY								
R21 ERJ3GEYJ683 68K 1 R414 ERJ3GEYJ470 47 1 R222 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R419 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100 1 R420 ERJ3GEYJ104 100 1 R420 ERJ3GEYJ104 100 1 R420 ERJ3GEYJ104 100 1 R420 ERJ3GEYJ101 100 1 R420 ERJ3GEYJ473 47K 1 R420 ERJ3GEYJ474 470K 1 R423 ERJ3GEYJ474 470K 1 R423 ERJ3GEYJ473 47K 1 R424 ERJ3GEYJ474 470K 1 R423 ERJ3GEYJ474 470K 1 R423 ERJ3GEYJ474 470K 1 R423 ERJ3GEYJ152 1.5K 1 R424 ERJ3GEYJ104 1000K 1 R424 ERJ3GEYJ152 1.5K 1 R425 ERJ3GEYJ104 1000K 1 R426 ERJ3GEYJ104 1000K 1 R426 ERJ3GEYJ123 12K 1 R426 ERJ3GEYJ104 1000K 1 R427 ERJ3GEYJ104 1000K 1 R428 ERJ3GEYJ472 4.7K 1 R427 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ472 4.7K								
R221 ERJ3GEYJ104 100K 1 R415 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ101 100 1 R420 ERJ3GEYJ470 47 1 1 R420 ERJ3GEYJ470 47 1 47 1 R420 ERJ3GEYJ470 47 1 1 R420 ERJ3GEYJ470 47								1
R223 ERJ3GEYJ153 15K 1 R416 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R417 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ153 15K 1 R418 ERJ3GEYJ104 100K 1 R419 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ104 100K 1 R420 ERJ3GEYJ101 100 1 R420 ERJ3GEYJ470 47 1 R420 ERJ3GEYJ470 47 1 R421 ERJ3GEYJ470 47 1 R421 ERJ3GEYJ470 47 1 R421 ERJ3GEYJ470 47 1 R421 ERJ3GEYJ474 470K 1 R421 ERJ3GEYJ474 470K 1 R423 ERJ3GEYJ474 470K 1 R424 ERJ3GEYJ474 470K 1 R424 ERJ3GEYJ474 470K 1 R425 ERJ3GEYJ474 470K 1 R426 ERJ3GEYJ152 1.5K 1 R426 ERJ3GEYJ152 1.5K 1 R427 ERJ3GEYJ164 560K 1 R428 ERJ3GEYJ472 4.7K 1 R427 ERJ3GEYJ474 4.7K 1 R427 ERJ3GEYJ474 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ474 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ474 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ474 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ472 4.7K 1 R428 ERJ3GEYJ474 4.7K 1								1
R224     ERJ3GEYJ153     15K     1     R417     ERJ3GEYJ153     15K     1       R225     ERJ3GEYJ683     68K     1     R418     ERJ3GEYJ1023     22K     1       R226     ERJ3GEYJ104     100K     1     R419     ERJ3GEYJ104     100K     1       R227     ERJ3GEYJ273     27K     1     R420     ERJ3GEYJ470     47     1       R228     ERJ3GEYJ273     27K     1     R421     ERJ3GEYJ101     100     1       R229     ERJ3GEYJ473     47K     1     R421     ERJ3GEYJ474     470K     1       R230     ERJ3GEYJ123     47K     1     R424     ERJ3GEYJ152     1.5K     1       R231     ERJ3GEYJ123     12K     1     R425     ERJ3GEYJ104     100K     1       R232     ERJ3GEYJ472     4.7K     1     R427     ERJ3GEYJ564     560K     1       R233     ERJ3GEYJ823     82K     1     R428     ERJ3GEYJ472     4.7K     1       R233     ERJ3GEYJ823     82K     1     R428     ERJ3GEYJ472     4.7K     1		1			1		i i	
R225       ERJ3GEYJ683       68K       1       R418       ERJ3GEYJ223       22K       1         R226       ERJ3GEYJ104       100K       1       R419       ERJ3GEYJ104       100K       1         R227       ERJ3GEYJ273       27K       1       R420       ERJ3GEYJ470       47       1         R228       ERJ3GEYJ273       27K       1       R421       ERJ3GEYJ101       100       1         R229       ERJ3GEYJ473       47K       1       R423       ERJ3GEYJ474       470K       1         R230       ERJ3GEY0R00       0       1       R424       ERJ3GEYJ152       1.5K       1         R231       ERJ3GEYJ123       12K       1       R425       ERJ3GEYJ104       100K       1         R232       ERJ3GEYJ472       4.7K       1       R427       ERJ3GEYJ564       560K       1         R233       ERJ3GEYJ823       82K       1       R428       ERJ3GEYJ472       4.7K       1				1	R417			
R226     ERJ3GEYJ104     100K     1     R419     ERJ3GEYJ104     100K     1       R227     ERJ3GEYJ273     27K     1     R420     ERJ3GEYJ470     47     1       R228     ERJ3GEYJ273     27K     1     R421     ERJ3GEYJ101     100     1       R229     ERJ3GEYJ473     47K     1     R423     ERJ3GEYJ474     470K     1       R230     ERJ3GEY0R00     0     1     R424     ERJ3GEYJ152     1.5K     1       R231     ERJ3GEYJ123     12K     1     R425     ERJ3GEYJ104     100K     1       R232     ERJ3GEYJ472     4.7K     1     R427     ERJ3GEYJ472     4.7K     1       R233     ERJ3GEYJ823     82K     1     R428     ERJ3GEYJ472     4.7K     1								1
R227     ERJ3GEYJ273     27K     1     R420     ERJ3GEYJ470     47       R228     ERJ3GEYJ273     27K     1     R421     ERJ3GEYJ101     100     1       R229     ERJ3GEYJ473     47K     1     R423     ERJ3GEYJ474     470K     1       R230     ERJ3GEY0R00     0     1     R424     ERJ3GEYJ152     1.5K     1       R231     ERJ3GEYJ123     12K     1     R425     ERJ3GEYJ104     100K     1       R232     ERJ3GEYJ472     4.7K     1     R427     ERJ3GEYJ564     560K     1       R233     ERJ3GEYJ823     82K     1     R428     ERJ3GEYJ472     4.7K     1       R428     ERJ3GEYJ472     4.7K     1     R428     ERJ3GEYJ472     4.7K     1			100K					1 1
R228     ERJ3GEYJ273     27K       R229     ERJ3GEYJ473     47K       R230     ERJ3GEYOR00     0       R231     ERJ3GEYJ123     12K       R232     ERJ3GEYJ472     4.7K       R233     ERJ3GEYJ472     4.7K       R233     ERJ3GEYJ823     82K       1     R428     ERJ3GEYJ472       4.7K     1       R232     ERJ3GEYJ823     82K       1     R428     ERJ3GEYJ472       4.7K     1       R232     ERJ3GEYJ823     82K       1     R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472     4.7K       1     R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R429     ERJ3GEYJ472       4.7K     1       R429     ERJ3GEYJ472       4.7K     1       8     1       8	1 1		1	Y Y				
R229     ERJ3GEYJ473     47K       R230     ERJ3GEYOR00     0     1     R424     ERJ3GEYJ152     1.5K     1       R231     ERJ3GEYJ123     12K     1     R425     ERJ3GEYJ104     100K     1       R232     ERJ3GEYJ472     4.7K     1     R427     ERJ3GEYJ564     560K     1       R233     ERJ3GEYJ823     82K     1     R428     ERJ3GEYJ472     4.7K     1       R233     ERJ3GEYJ823     82K     1     R428     ERJ3GEYJ472     4.7K     1								
R230     ERJ3GEY0R00     0       R231     ERJ3GEYJ123     12K       R232     ERJ3GEYJ472     4.7K       R233     ERJ3GEYJ472     4.7K       R233     ERJ3GEYJ823     82K       1     R428     ERJ3GEYJ472       4.7K     1       R233     ERJ3GEYJ823     82K       1     R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       R428     ERJ3GEYJ472       4.7K     1       82K     1       82K     1								
R231					3			
R232 ERJ3GEYJ472 4.7K 1 R427 ERJ3GEYJ472 4.7K 1 R428 E								
1 DAGS   ENJOYE 13025   0217   1				- 1				1
			56K	1	R429		330K	1

Ref. No.	Part No.	Value	Pcs/Set	Ref. No.	Part No.	Value	Pcs/Set
R430	ERJ3GEYJ334	330K	1	C240	ECEA1CKS470	47 S	1 1
R431	ERJ3GEYJ821	820	1	C241	ECUV1A105ZFV	1-	1 1
R432	ERJ3GEYJ102	1K	1	C242	ECEA1CKS470	47 S	1 1
R434	ERJ3GEYJ222	2.2K	1	C243	ECUV1H103KBV	0.01	
R435	ERJ3GEYJ222	2.2K	1	C244	ECUV1H182KBV	0.0018	1 1
R436	ERJ3GEYJ123	12K	1	C246	ECUV1C104KBV	0.1	
R437	ERJ3GEYJ220	22	1	C248	ECEA0JK221	220 S	
R438	ERJ3GEYJ222	2.2K	1	C250	ECUV1C104KBV	0.1	1 1
R439	ERJ3GEYJ222	2.2K	1 1	C251	ECST0JX226	22	1 1
R440	ERJ3GEYJ222	2.2K	1	C252	ECUV1H180JCV	18P	1 1
R441	ERJ3GEYJ222	2.2K	1	C253	ECUV1H180JCV	18P	.   .
R442	ERJ3GEYJ101	100	1 1	C254	ECUV1H104MD	0.1	
R453	ERJ3GEY0R00	0	1	C255	ECUV1C104KBV	0.1	1 1
R456	ERJ3GEY0R00	0	1	C256	ECST0JX226	22	
R457	ERJ3GEYJ822	8.2K	1	C258	ECUV1A105ZFV	1	
R458	ERJ3GEY0R00	0	1	C259	ECUV1C104KBV	0.1	
R459	ERJ3GEYJ680	68	1 1	C261	ECUV1C104ZFV	0.1	1 1
R460	ERJ3GEY0R00	0	1	C262	ECUV1C104ZFV ECUV1C104ZFV	0.1	
R461	ECUV1H040CCV	4P	1	C263 C264	ECUV1C104ZFV	0.1	1 i l
R462	ERJ3GEYJ680	68	1	C264	ECUV1C104ZFV	0.1	1 1
1		L			ECUV1H182KBV	0.0018	1 1
J200	PQ4R18XJ000	0	1 1	C266 C267	ECUV1G104ZFV	0.0018	1 1
J202	ERJ3GEY0R00	0	1	C402	ECUV1H0R5CCV	0.5P	1 1
J203	ERJ3GEY0R00	0	1	C402	ECUV1H102KBV	0.001	1 1
J204	ERJ3GEY0R00	0	1	C405	ECUV1H020CCV	2P	1 1
J205	ERJ3GEY0R00	0 COIL	li	C406	ECUV1H102KBV	0.001	1
J206	PQLQR2TR10K	0	1	C407	ECUV1H040CCV	4P	1 1
J208	ERJ3GEY0R00	0	1	C408	ECUV1H020CCV	2P	1
J209	ERJ3GEY0R00 ERJ3GEY0R00	0	l i	C409	ECUV1H1R5CCV	1.5P	1
J210	ERJ3GEY0R00	o o	l i	C410	ECEA1CKS470	47	3 1
J211 J212	ERJ3GEY0R00	ő	1	C411	ECUV1H103KBV	0.01	1 1
J212 J213	ERJ3GEY0R00	0	1	C412	ECUV1H040CCV	4P	1
J213	ERJ3GEY0R00	o o	1	C413	PQCUV1C224KB	0.22	1
J215	ERJ3GEY0R00	o	1	C414	ECUV1H332KBV	0.0033	1 1
0210	LINGGETOTIO	l <sup>o</sup>		C415	ECUV1H332KBV	0.0033	1
				C417	ECUV1H820JCV	82P	1 1
				C418	ECUV1H430JCV	43P	1
		(CAPACITORS)		C419	ECUV1H080DCV	8P	1
C201	PQCUV1H103KB	0.01	1	C420	ECUV1H103KBV	0.01	1
C202	PQCUV1H103KB	0.01	. 1	C422	ECUV1H030CCV	3P	1
C203	ECUV1H103KBV	0.01	1	C423	ECUV1H102KBV	0.001	1 1
C204	ECUV1H103KBV	0.01	1	C424	ECUV1H102KBV	0.001	1
C205	ECUV1H103KBV	0.01	1	C425	ECUV1H102KBV	0.001	1 1
C206	ECUV1C104KBV	0.1	1	C427	ECUV1H102KBV	0.001	
C207	ECEA0JKA331	330	1	C428	ECUV1H060DCV	6P	1 1
C208	ECEA1CKS100	10 S	1	C429	ERJ3GEYJ470	47	1 1 1
C213	ECUV1H101JCV	100P	1	C430	ECUV1H103KBV	0.01	s 1 1 S 1
C214	ECUV1C104KBV	0.1	1 1	C431	ECEA1CKS470		S   1 1
C215	ECUV1H391JCV	390P	1 1	C432	ECUV1H562KBV	0.0056 0.0056	
C217	ECUV1C104ZFV	0.1	1	C433	ECUV1H562KBV	0.0056	
C218	ECUV1A105ZFV	1	1	C434 C436	PQCUV1C224KB ECUV1H680JCV	68P	
C219	ECUV1C104ZFV	0.1	1	1 1	ECUV1H103KBV	0.01	1 1
C220	ECUV1C104ZFV	0.1	1	C437 C438	ECUV1H220JCV	22P	1 1
C221	ECUV1H102KBV	0.001	1	C438	PQCUV1E104MD		S 1
C222	ECUV1H472KBV	0.0047			ECUV1H680JCV	68P	1
C223	ECEA1VKS4R7	4.7 S	1 1	C440 C441	ECUV1H333KDV		s 1
C224	PQCUV1C105ZF	0.022 S		C441	ECUV1H821KBV	820P	1
C225	ECUV1H223KBV	0.022 S 0.0047	1	C442	ECUV1H821KBV	820P	1
C226	ECUV1H472KBV	0.0047 470P		C445	ECUV1H472KBV	0.0047	1
C227	ECUV1H471JCV	10 S		C446	ECUV1H020CCV	2P	1
C228	ECEA1CKS100	10 S		C448	ECUV1C104KBV	0.1	1
C230	ECEA1CKS100 ECEA1VKS4R7	4.7 S		C449	ECUV1H103KBV	0.01	1
C231	ECUV1C104ZFV	0.1	1 1	C450	ECUV1C104KBV	0.1	1
C232 C233	ECUV1H822KBV	0.0082	1	C451	PQCUV1C105ZF	1	1
C233	ECUV1A105ZFV	1	i	C452	ECUV1H103KBV	0.01	1
C234 C235	ECUV1C104ZFV	0.1	1	C476	ECUV1H102KBV	0.001	1
C235	ECUV1H102KBV	0.001	1	C482	ECUV1H0R5CCV	0.5P	1
C237	ECUV1C104KBV	0.1	1	C486	ECUV1H102KBV	0.001	1
C239	ECUV1A105ZFV	1	1 1	C487	ECUV1H102KBV	0.001	1

Ref. No.	Part No.		Value	Pcs/Set	Ref. No.	1
C488	ECUV1H101JCV	100P		1		
C489	ECUV1H010CCV	1P		1 1	11	
C491	ECUV1H030CCV	3P		1		
C492	ECUV1H102KBV	0.001		1	1 1	
C494	ERJ3GEY0R00	О		1 1	A1	KX-
C495	ECEA1CKS470	47		S 1	A2	PQJ
C498	ECUV1H101JCV	100P		1	A3	PQK
C499	ECUV1H101JCV	100P		1	/	1, «,,
C500	ECUV1H101JCV	100P		1	A4	PQK
C501	ECUV1H101JCV	100P		1	^-	J. GIV
C502	ECUV1H101JCV	100P		1		l
2502 2503	ECUV1H101JCV	100P		1 1	A5	PQK
C504	ECUV1H101JCV	100P		1 1	A6	PQQ
D504 D505	ECUV1H101JCV			1	A7	PQQ
2506 2506		100P		1	A8	PQQ
2500 2507	ECUV1H101JCV	100P		1		
2507 2508	ECUV1H101JCV	100P		1	A8	PQQ
	ECUV1H101JCV	100P		1		
2509	ECUV1H101JCV	100P		1 1	A9	PQQ
2510	ECUV1H101JCV	100P		1		
2511	ECUV1H101JCV	100P		1		1
512	ECUV1H101JCV	100P		1 1		1
513	ECUV1H101JCV	100P		1 1		1
517	ECUV1H101JCV	100P		1 1		
518	ECUV1H101JCV	100P		1 1		
525 527	ERJ3GEYJ470 ERJ3GEY0R00	47 0		1 1	P1	PQPF
.027	LINGGETOROU	ľ		1	P2	XZB1
		1		1	P3	PQPN
				] [	P4	PQPN
1				1	P5	PQPN
					P6	PQPK
					ļ	
		İ			Z1	PQZZ
					Z2 Z2	PQZZ
					Note:	
				1 1	PQZZ10K1	

Ref. No.	Part No.	Part Name & Description	Pcs/Set
		КХ-ТСМ940-В	
		ACCESSORIES	***
A1	KX-A11-6	AC ADAPTOR 🛕	1
A2	PQJA59V	TEL CORD	1
A3	PQKK10065Z1	BATTERY COVER	1
A4	DOKKARRATA	(for BASE UNIT)	
A4	PQKK10066Z1	BATTERY COVER	1
		(for PORTABLE HANDSET)	ŀ
A5	PQKL24Y0	WALL MOUNT BRACKET	1
A6	PQQT11232Z	INSTRUCTION LABEL	1
A7	PQQT11156Y	TEL CARD LABEL	1
A8	PQQW11677Z	QUICK REFERENCE GUIDE	1
		(ENGLISH)	
A8	PQQW11678Z	QUICK REFERENCE GUIDE	1
		(SPANISH)	
A9	PQQX11658Z	INSTRUCTION BOOK	1
		<b>!</b>	
		PACKING MATERIALS	
		PACKING MATERIALS	
P1	PQPP170Z	BATTERY COVER	1
		(for BASE UNIT)	
2	XZB10X35A02	BATTERY COVER	1
		(for PORTABLE HANDSET)	
23	PQPN10553Z	CUSHION	1
24	PQPN10554Z	ACCESSORY BOX	1
25	PQPN10560Z	ACCESSORY BOX	1
26	PQPK12180Z	GIFT BOX	1
		1	
		TOOLS	
		TOOLS	
<u>?</u> 1	PQZZ10K11Z	EXTENSION CORD, 10P	1
72	PQZZ14K8Z	EXTENSION CORD, 14P	il
			- i - I
		1	
lote:		1	
QZZ10K1	Z and PQZZ14K8Z ar	e neccessity for servicing.	
		1 ' '	
		1	
		1	